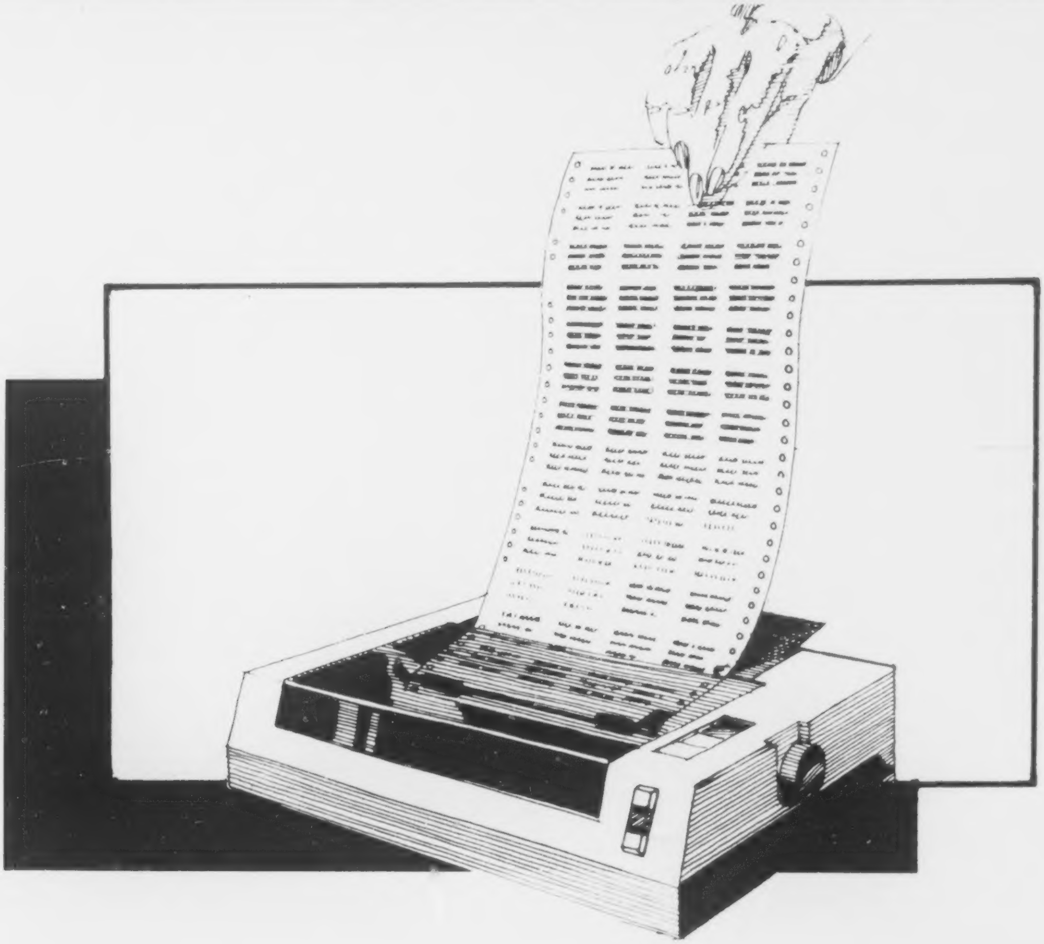
52784-2

Labor Market Information for Iowa



Department of Employment Services

Labor Market Information

LABOR MARKET INFORMATION FOR IOWA

DEPARTMENT OF EMPLOYMENT SERVICES
1000 EAST GRAND AVENUE
DES MOINES, IOWA 50319

Richard G. Freeman, Director
Jerry E. Mathiasen, Deputy Director

AUDIT AND ANALYSIS SECTION
Labor Market Information Unit

Telephone: (515) 281-8179

May 1988

PREFACE

Labor Market Information for Iowa is a statistical and analytical presentation of labor force, population, and occupational data for the state. It is prepared by the Labor Market Information Unit, Audit and Analysis Section, Iowa Department of Employment Services, in cooperation with the Bureau of Labor Statistics and the Employment and Training Administration. Computerized data on Job Service applicants and openings have been used extensively in the preparation of this report.

General information for the sixteen Iowa Service Delivery Areas may be found in the appendix. For more detailed knowledge about these areas, the reader should consult Labor Market Information for Service Delivery Areas, published quarterly by the Department of Employment Services.

The Department of Employment Services is fully committed and dedicated to a policy of equal employment opportunity for all in recruitment, examination, appointment, training, promotion, retention, discipline and any other aspect of personnel administration, without any consideration for race, color, creed, age, sex, political or religious affiliations or national origin. Discrimination on the basis of age or sex or physical or mental disability is prohibited except where specific age, sex or physical or mental requirements constitute a bona fide occupational qualification necessary for proper and efficient administration.

TABLE OF CONTENTS

Page

Introduction 1

Department of Employment Services Labor Market Information 8

Job Training Partnership Act.. 10

- Introduction 10
- Program Participants...................................... 11
- JTPA Labor Market Information Requirements................. 11
- Labor Force and General Population Information............. 11
- Information on Industries and Firms........................ 13
- Information on Occupations and Jobs........................ 13
- Training and Placement Assistance Information.............. 14

Iowa Population Developments 15

Labor Force Characteristics and Trends 18

Employment Developments by Industry 21

Employment Outlook by Occupation 35

Labor Supply and Demand 44

- Job Openings and Applicants 44
- Technical Notes 50

Characteristics of Job Service Applicants 54

Characteristics of Job Insurance Recipients 57

Appendix A - Population of Iowa (State and Counties) 61

Appendix B - Civilian Population by Age, Race and Sex
State of Iowa 1980 and 1990 73

Appendix C - Labor Force Summary by Age, Race, and Sex
in State of Iowa 77

TABLE OF CONTENTS (continued)

Appendix D - Unemployment Rates by County
Unemployment Rates by State
(1987 Annual Averages) 83

Appendix E - Iowa Nonagricultural Wage and Salary Employment
1978-1987 87

Appendix F - Iowa Industry Projections 1987-1990 91

Appendix G - Job Openings and Applicants by Occupation
January 1, 1987-December 31, 1987
State of Iowa 97

Appendix H - Job Openings by Industry
Years Ending December 1986 and 1987 115

Appendix I - Labor Supply and Demand for Service Delivery Areas
Year Ending December 31, 1987 119

Appendix J - Job Insurance Recipients 127

Appendix K - Job Service Labor Market Information Products 133

LIST OF TABLES

Page

Table 1 Nonagricultural Wage and Salary Employment United States and Iowa (In Percent) 1987 (Annual Averages) 3

Table 2 Total Resident Population of the United States and the State of Iowa 15

Table 3 Iowa Labor Force Participation Rates 18

Table 4 Iowa Occupational Employment Profile 36

Table 5 Occupations with the Greatest Growth Potential 37

Table 6 Fastest Growing Occupations 39

Table 7 Occupations with the Greatest Number of Projected Openings 41

Table 8 Occupations with Declining Employment 43

Table 9 Occupations with the Greatest Number of Openings January through December 1987 45

Table 10 Labor Supply and Demand by Occupational Group Year Ending December 31, 1987 46

Table 11 Occupations with the Greatest Number of Applicants January through December 1987 48

Table 12 Characteristics of Job Service Applicants January 1, 1987 through December 31, 1987 55

LIST OF ILLUSTRATIONS

Page

Population of Iowa, Urban and Rural, 1850-1980 1

Farm Income as a Percent of Total Personal Income 2

Iowa Unemployment Rates by County, 1987 Annual Average 4

U.S. Unemployment Rates by State, 1987 Annual Average 5

Iowa Economic Changes, 1980 to 1986 6

Percent Share of Personal Income By Industry, State of Iowa, 1976 and 1986 7

Job Service Field Operations/Iowa Service Delivery Areas 9

Iowa Population by County, 1986 16

Iowa Labor Force and Unemployment, 1977-1987 19

Iowa Resident Civilian Labor Force, 1950-1987 20

Total Nonagricultural Wage and Salary Employment, State of Iowa 1986 - 1987 21

Iowa Share of Nonagricultural Wage and Salary Employment, (By Major Industry Group), 1980 and 1987 23

Employment Distribution By Selected Industry, United States and Iowa, 1987 (Industries with Higher Percentage Nationally) ... 26

Nonagricultural Wage and Salary Employment For Selected Industries, State of Iowa, 1980-1987 28

Nonagricultural Wage and Salary Employment By Percent, State of Iowa, 1980 and 1987 31

Employment Distribution By Selected Industry, United States and Iowa, 1987 (Industries with Higher Percent in Iowa) 32

Change in Nonagricultural Wage and Salary Employment, United States and Iowa, 1980-1987 34

Iowa Occupational Employment Profile, 1987-1990 40

Total Job Service Openings, State of Iow., 1985-1987 44

LIST OF ILLUSTRATIONS (continued)

Page

Openings and Applicants by Occupational Group
January through December 1987 49

Job Openings By Industrial Category
Year Ending December 31, 1987 51

Applicant/Opening Ratios (By Service Delivery Area)
January through December 1987 52

Job Service Openings By Occupational Group
Year Ending December 1986 through Year Ending December 1987. 53

Comparison of Job Service Applicants with Projected FY 1989
Unemployment 56

Job Insurance Recipients, 1987 56

Job Insurance Recipients with Experience in Selected Industries,
January through December 1987 56

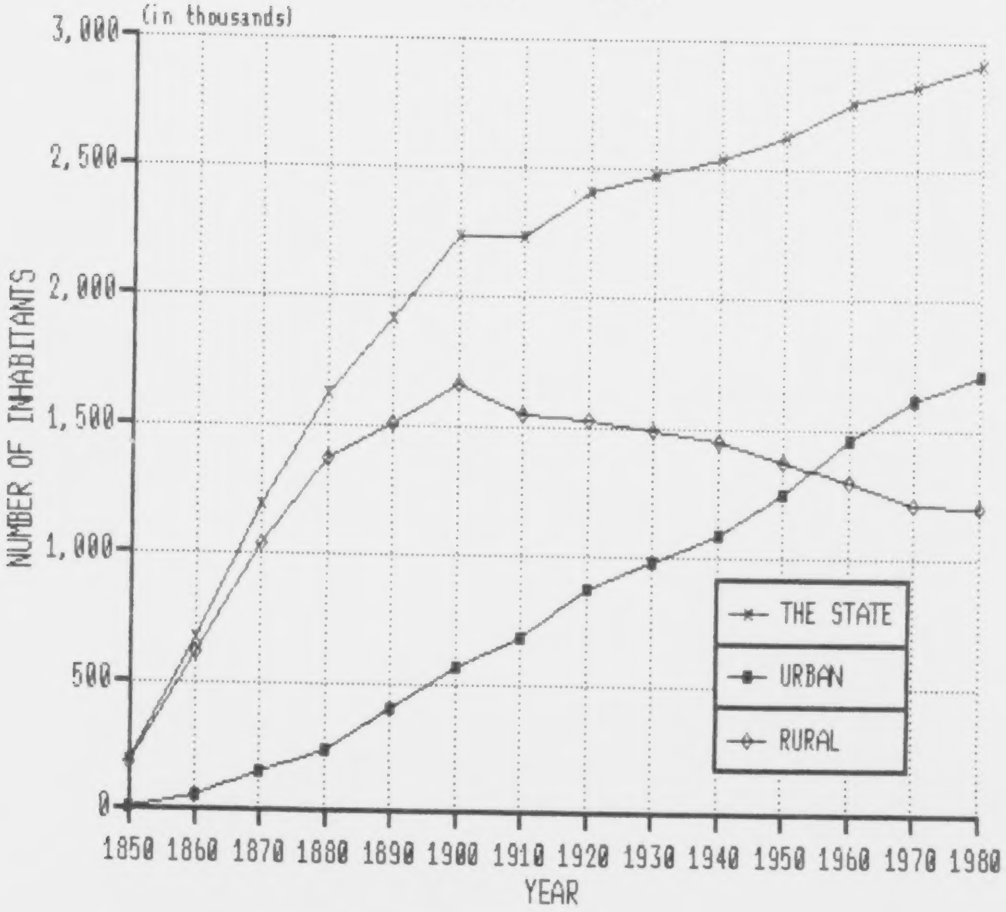
Total and Insured Unemployed
State of Iowa, 1987 57

Job Insurance Recipients by Sex
January through December 1987
State of Iowa 60

INTRODUCTION

Iowa is traditionally considered a rural state. However, the number of inhabitants who live outside of towns and cities has been declining for most of this century. The decade of the nineteen-seventies was the only period since 1890 that the rural population of Iowa did not decrease. In contrast, until 1980, the history of the urban portion of the state was one of unbroken growth. In terms of population, Iowa became an urban state between 1950 and 1960. In 1980, more than 57 percent of its inhabitants lived in cities and towns. Since then, eight of the ten most populous cities have reported lower levels of population.

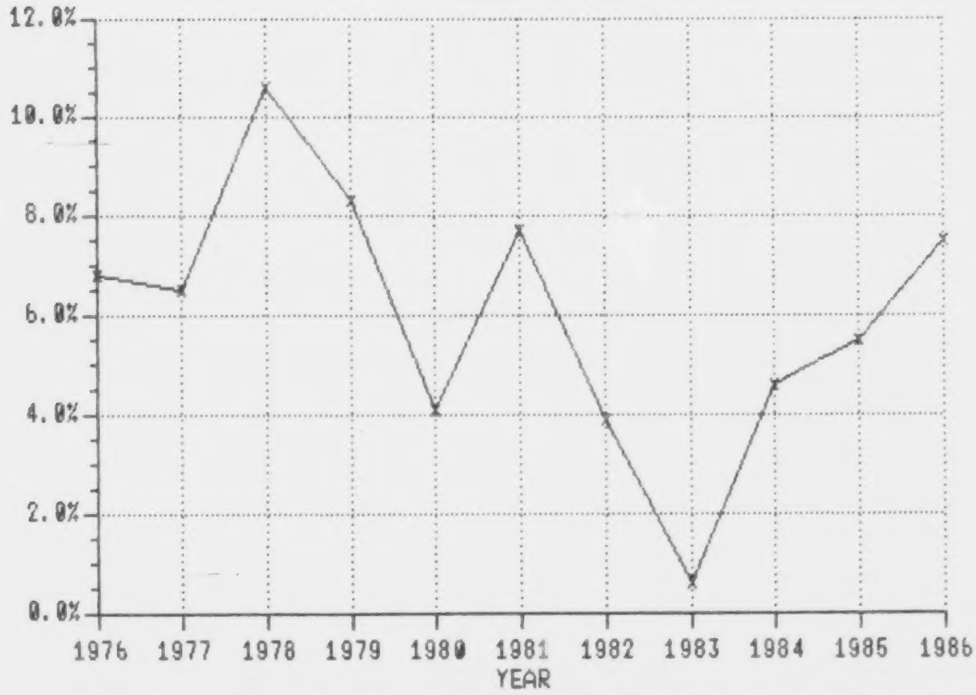
POPULATION OF IOWA
URBAN AND RURAL
1850 - 1980



SOURCE: BUREAU OF THE CENSUS.

Agriculture has traditionally been a major influence on the Iowa economy. In 1973, farm income (by itself) accounted for 18 percent of total Iowa personal income. This does not include the income derived from industries which are related to agriculture, such as food and kindred products, farm machinery, agricultural chemicals, or those establishments which sell farm supplies. However, since 1978, the farm share of Iowa personal income has not once exceeded 10 percent. In the previous decade, farmers had increased their production of corn and soybeans in order to supply the needs of an expanding world market. However, when the volume of these exports dropped by a third, the number of acres planted remained at very high levels, resulting in huge crop surpluses. At the same time that demand for agricultural commodities was contracting, interest rates tripled. For these reasons, farm expenses climbed while agricultural income was falling. In Iowa, the decline of the farm sector had a negative effect throughout the economy. For example, employment in the farm machinery manufacturing industry, which has averaged nearly 16 percent of national farm machinery employment, has dropped by half since 1980.

FARM INCOME AS A PERCENT OF TOTAL PERSONAL INCOME
STATE OF IOWA
1976 - 1986



SOURCE: U.S. DEPARTMENT OF COMMERCE, BUREAU OF ECONOMIC ANALYSIS

In terms of both income and employment, it is nonagricultural industries that dominate the Iowa economy. In 1986, nonfarm personal income was more than twelve times as high as the income recorded in the farm sector. During that year, nonfarm income exceeded 35.2 billion dollars. However, part of this income was earned in agriculture related industries. In non-agricultural related industries, Iowa manufacturers produce construction machinery, electrical equipment, primary and fabricated metals, rubber goods, and plastics.

TABLE 1

Nonagricultural Wage and Salary Employment
United States and Iowa (In Percent)
1987 (Annual Average)

	United States	Iowa
TOTAL	**102,112,000**	**1,107,200**
Manufacturing	18.7%	19.3%
Mining	0.7	0.2
Construction	4.9	3.2
Transportation & Public Utilities	5.3	4.8
Trade	23.6	25.4
Finance, Insurance & Real Estate	6.5	5.8
Services	23.6	22.2
Government	16.7	19.1

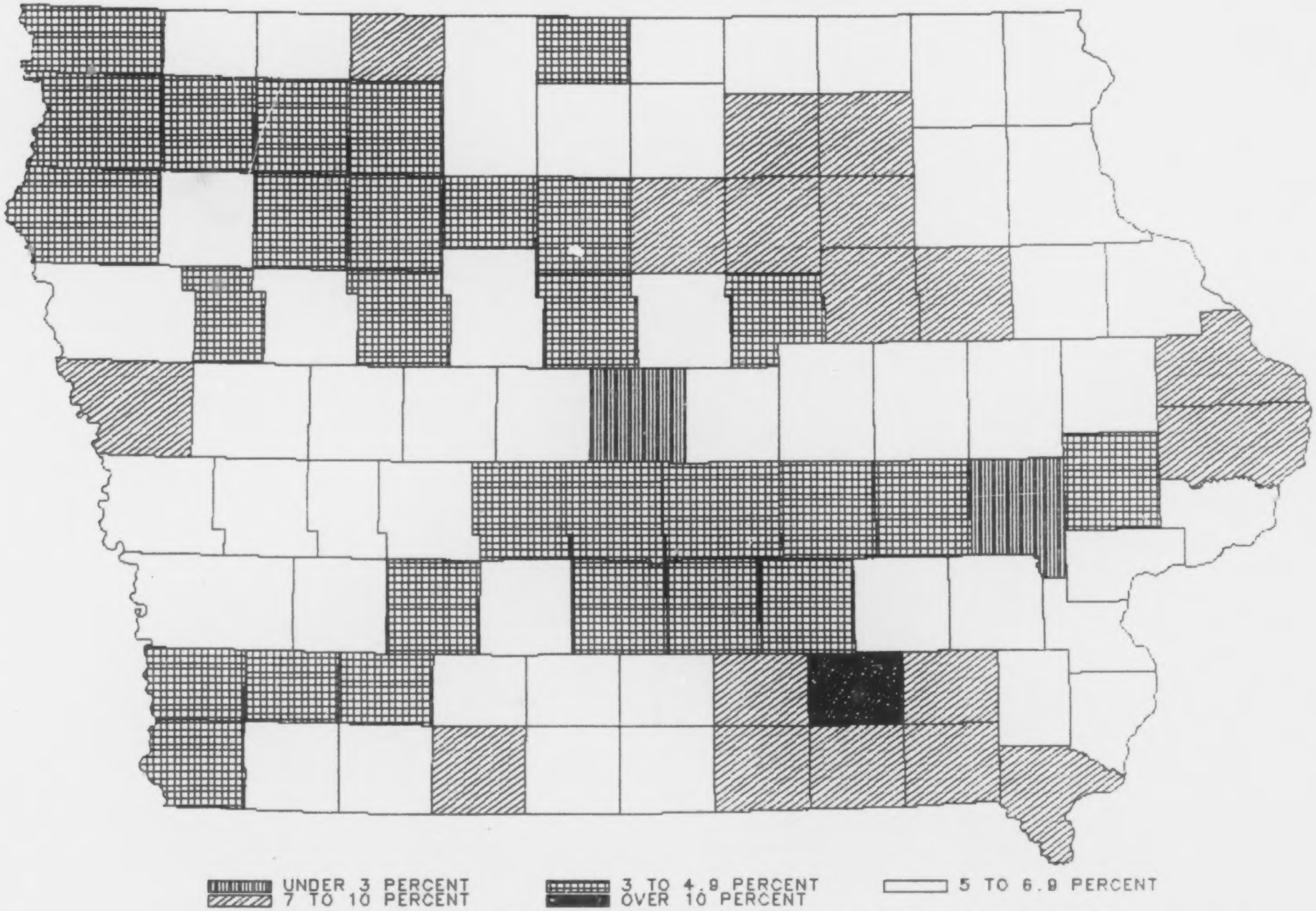
Iowa's central location and diversified transportation system provides convenient access to all parts of the country.

Interstate highways cross Iowa east and west, north and south, and along the western border. Iowa's highways and farm-to-market roads provide easy access to urban centers and ten-state regional markets. Iowa ranks ninth in the nation for total mileage of all road systems, even though it is only twenty-fifth in area.

Iowa is served by six Class I railroads, providing service on 4,700 miles of track. "Piggyback" service is available to eleven cities and 24 terminal sites. Shipments can reach about one-fourth of the nation in a day, and the farthest point in about four days.

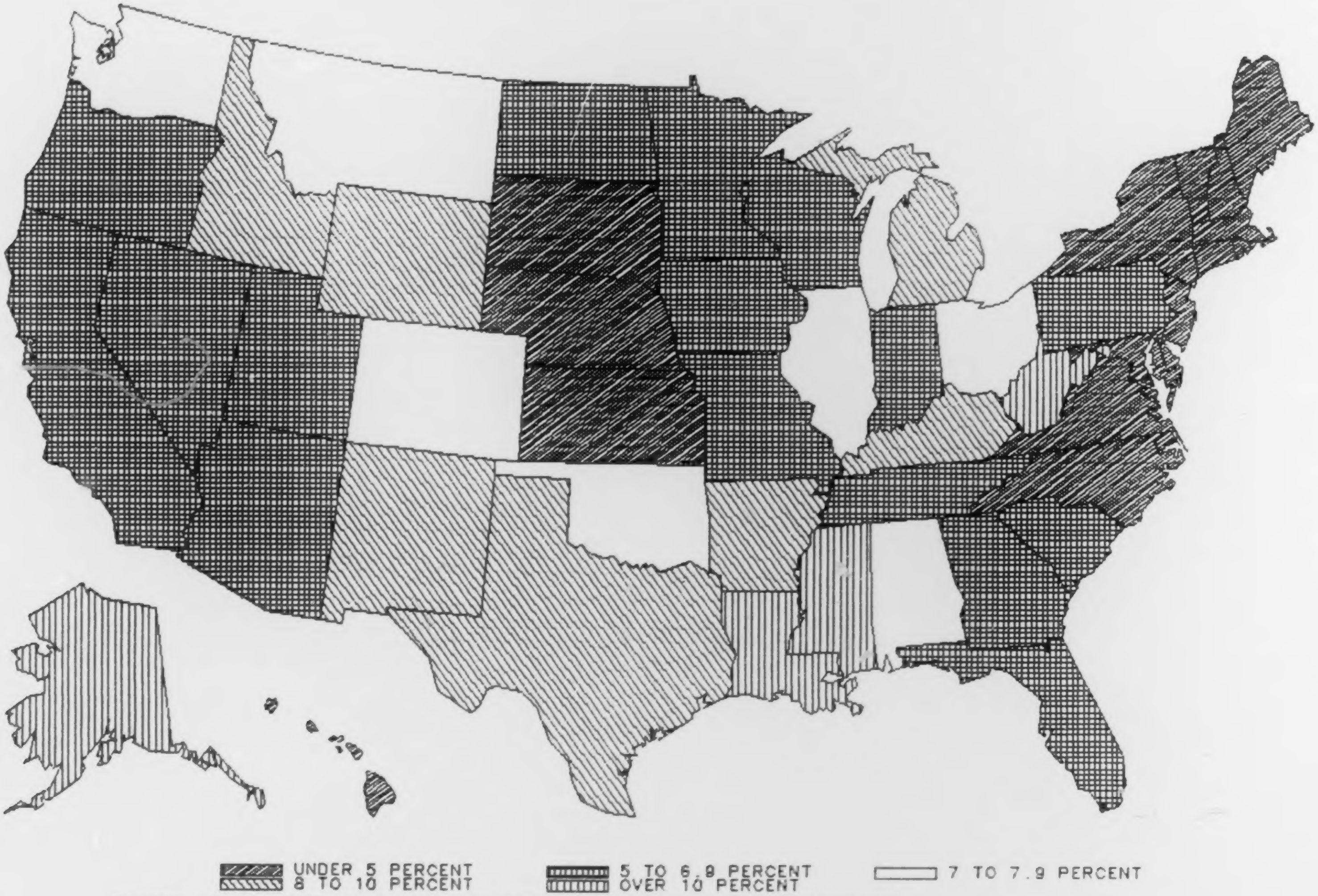
Iowa is bordered by two navigable rivers. Goods can go by water as far east as Pennsylvania, west to Oklahoma, and to seaports on the Gulf and Great Lakes. Water transportation is of prime importance in international trade and in competitive rate structure among other means of transportation. In 1984, nearly 43 million tons of cargo on the Mississippi passed through the Davenport area. Sixty-five percent consisted of grain shipments, while nearly a fifth contained coal and petroleum products.

IOWA UNEMPLOYMENT RATES BY COUNTY
1987 ANNUAL AVERAGE


▥ UNDER 3 PERCENT
▨ 7 TO 10 PERCENT
▦ 3 TO 4.9 PERCENT
■ OVER 10 PERCENT
☐ 5 TO 6.9 PERCENT

SOURCE: LABOR MARKET INFORMATION UNIT, DEPARTMENT OF EMPLOYMENT SERVICES

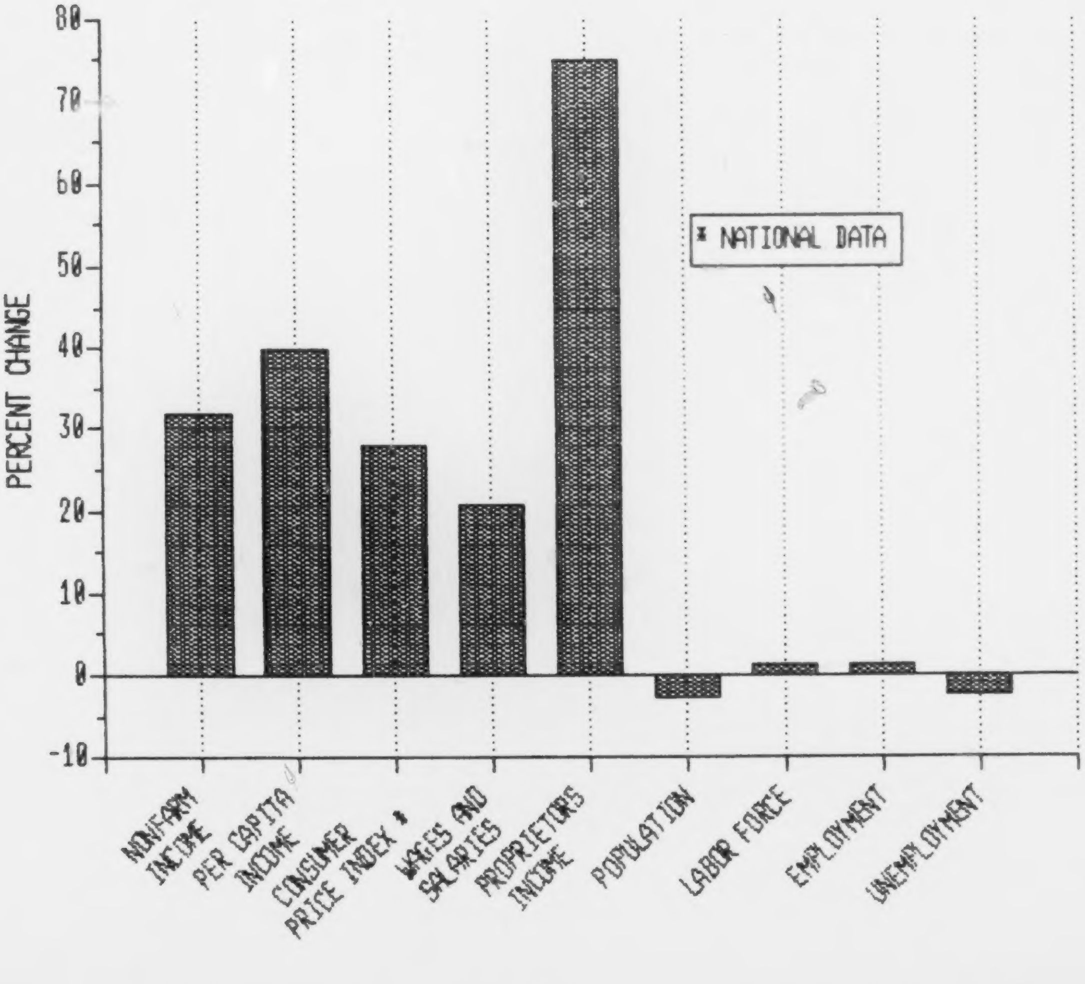
U.S. UNEMPLOYMENT RATES BY STATE
1987 ANNUAL AVERAGE


▨ UNDER 5 PERCENT
▨ 8 TO 10 PERCENT
▦ 5 TO 6.9 PERCENT
▥ OVER 10 PERCENT
☐ 7 TO 7.9 PERCENT

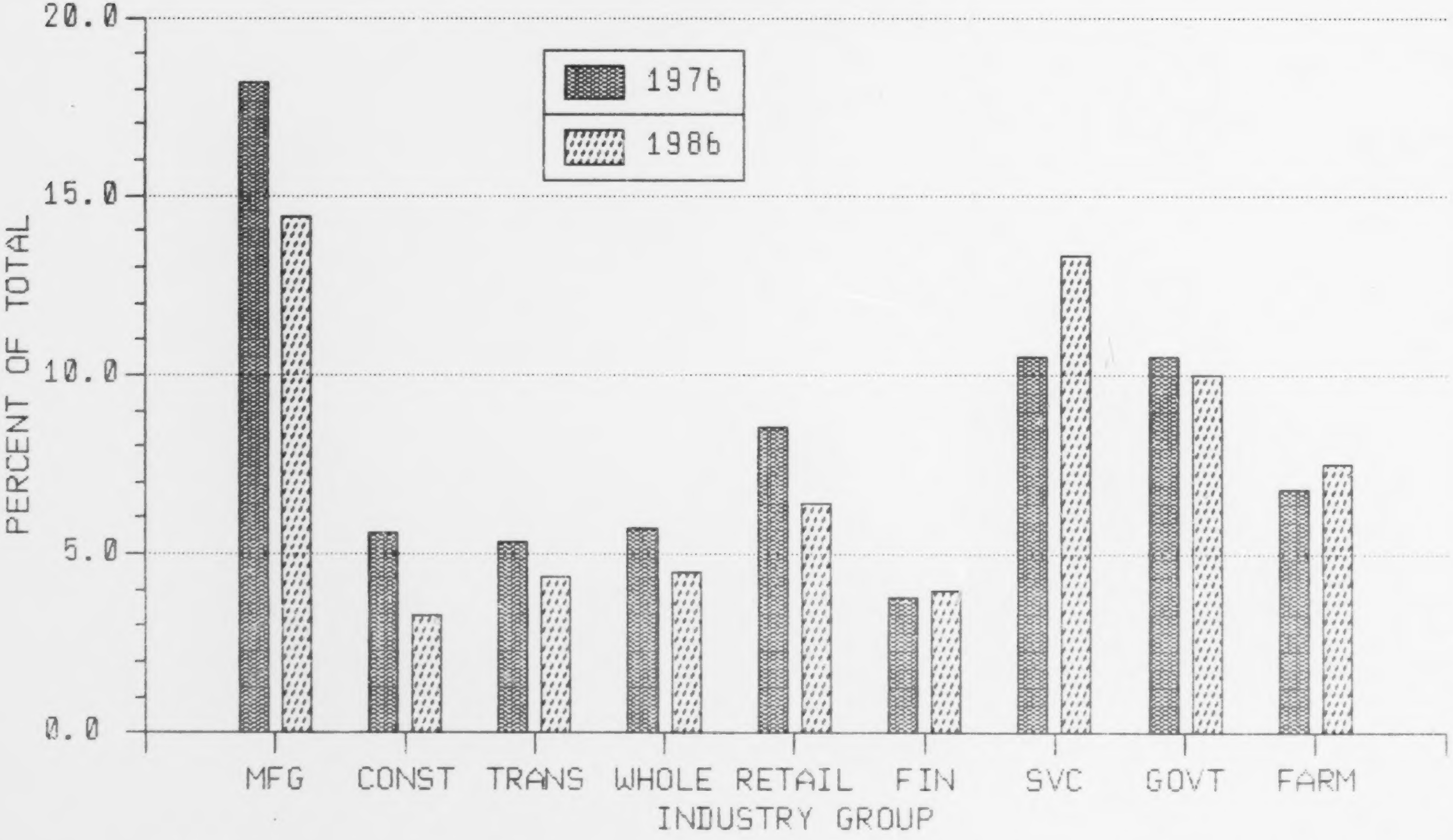
SOURCE: LABOR MARKET INFORMATION UNIT, IOWA DEPARTMENT OF EMPLOYMENT SERVICES

Iowa is also served by seven major airlines; these are American, America West, Frontier, Ozark, Republic, TWA, and United. There are also several commuter lines which provide service to Iowa cities. The state also has 350 airports. Of these, ninety-five have all-weather runways and 134 are lighted. No part of Iowa is more than thirty minutes drive from an airport suitable for a company plane.

Finally, an excellent educational system is available to serve the people and businesses of Iowa. The state contains 436 public school districts, in addition to 228 parochial and private schools. There are also three state universities in addition to thirty-four private colleges and universities. Iowans are also able to attend fifteen area vocational-technical schools and community colleges.



IOWA ECONOMIC CHANGES
1980 - 1986



PERCENT SHARE OF PERSONAL INCOME BY INDUSTRY
STATE OF IOWA
1976 AND 1986

SOURCE: U.S. DEPARTMENT OF COMMERCE, BUREAU OF ECONOMIC ANALYSIS.

DEPARTMENT OF EMPLOYMENT SERVICES LABOR MARKET INFORMATION

The Department of Employment Services operates 69 Job Service Offices throughout Iowa. Both Job Placement (JP) and Job Insurance (JI) services are available at each of these sites. In addition, the Department functions as a Labor Market Information (LMI) delivery system for the state and all of its counties. Much of the data presented in this and other reports are generated as a by-product of JP and JI activities throughout Iowa. The majority of this information relates to the demographic characteristics of applicants and claimants (e.g. age, race, and sex), in addition to their occupational classifications. Also, occupational and wage data are available from job openings which have been listed with all offices in the state.

Because Job Service serves nearly 295,000 applicants, in addition to a monthly average of 22,000 Job Insurance claimants, the agency has been able to collect data on a large sample of the population of Iowa. In addition, Iowa employers listed 67,600 openings (in excess of 150 days in duration) with the agency during calendar year 1987. This information does not include all the vacancies available in Iowa because employers may use other sources to find workers. However, as a result of this large volume of employers and applicants who utilize the agency, it appears that the Job Service is able to collect data on an excellent cross section of job seekers and openings which are available in the state.

The Department of Employment Services also conducts the Occupational Employment Statistics (OES) survey (in cooperation with the Bureau of Labor Statistics), which is the primary component of occupational projections.

The OES program is designed to meet the needs of planners, educators, state employment security agencies and many others in government and private industry concerned with human resource development. Some of the important uses of this data are:

1. Education and Training Planning

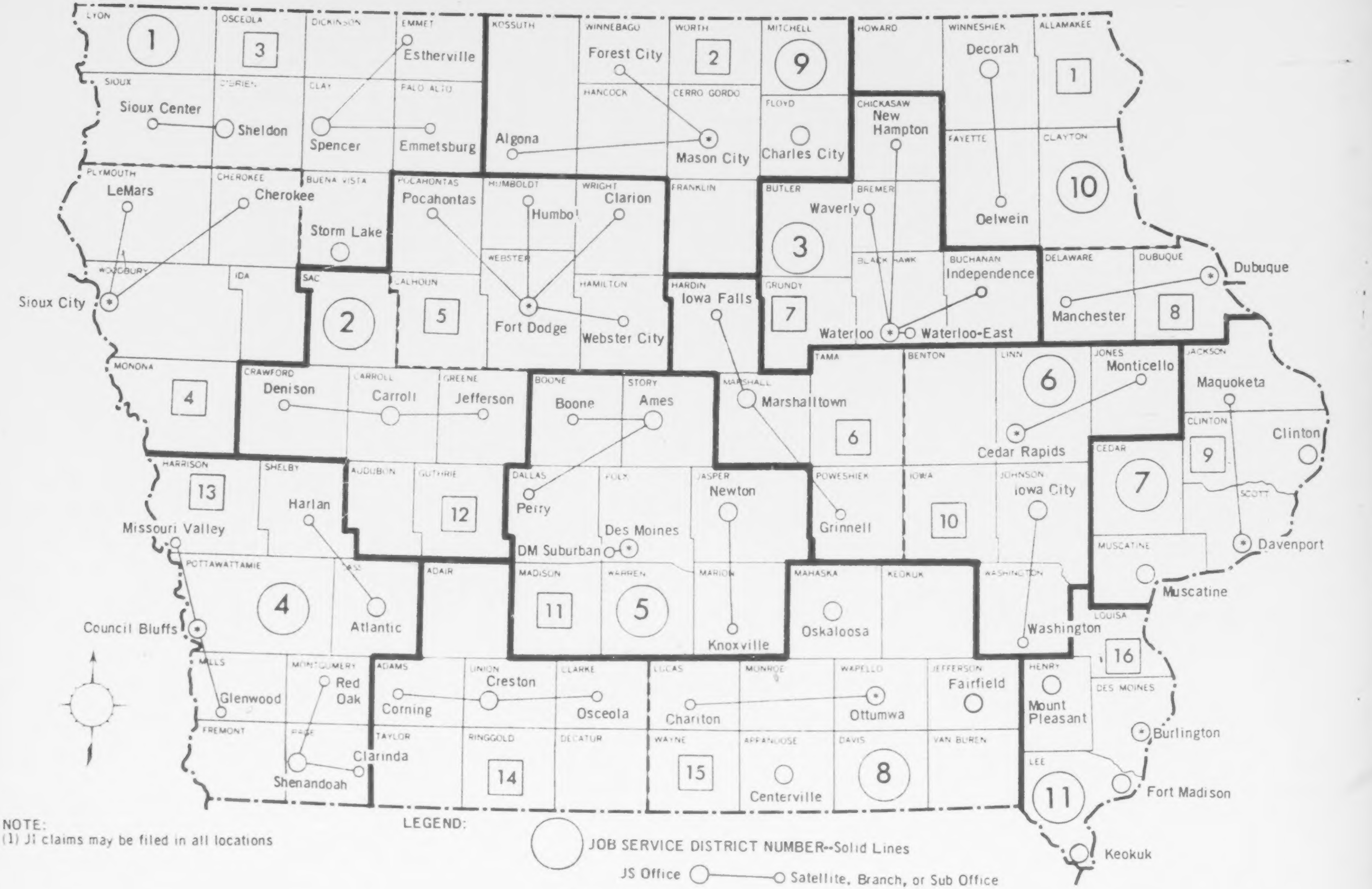
    -for assessment of current and future occupational needs
    -for evaluation and development of study and training programs in relation to employment requirements
    -for accommodation to technological, economic and other changes

2. Career and Job Counseling

    -for improved worker selection by providing a larger supply of better trained workers, as a result of educational training and recruiting programs attuned to occupational needs
    -for formulation of policies, plans and goals in relation to present and future occupational patterns
    -for adjustment to new technologies and other changes
    -for identification of markets for products and services.

A detailed discussion of the OES survey may be found in the chapter "Employment Outlook by Occupation."

JOB SERVICE FIELD OPERATIONS/IOWA SERVICE DELIVERY AREAS



LYON
OSCEOLA
DICKINSON
EMMET
KOSSUTH
WINNEBAGO
WORTH
MITCHELL
HOWARD
WINNESHIEK
ALLAMAKEE
1
3
Estherville
Forest City
2
9
Decorah
1
SIOUX
O'BRIEN
CLAY
PALO ALTO
HANCOCK
CERRO GORDO
FLOYD
CHICKASAW
FAYETTE
CLAYTON
Sioux Center
Sheldon
Spencer
Emmetsburg
Algona
Mason City
Charles City
New Hampton
Oelwein
10
PLYMOUTH
CHEROKEE
BUENA VISTA
POCAHONTAS
HUMBOLDT
WRIGHT
FRANKLIN
BUTLER
BREMER
LeMars
Cherokee
Storm Lake
Pocahontas
Humboldt
Clarion
Waverly
3
WOODBURY
IDA
SAC
CALHOUN
WEBSTER
HAMILTON
HARDIN
GRUNDY
BLACK HAWK
BUCHANAN
DELAWARE
DUBUQUE
Sioux City
2
5
Fort Dodge
Webster City
Iowa Falls
7
Waterloo
Waterloo-East
Independence
Manchester
8
Dubuque
MONONA
CRAWFORD
CARROLL
GREENE
BOONE
STORY
MARSHALL
TAMA
BENTON
LINN
JONES
JACKSON
4
Denison
Carroll
Jefferson
Boone
Ames
Marshalltown
6
6
Cedar Rapids
Monticello
Maquoketa
CLINTON
Clinton
9
HARRISON
SHELBY
AUDUBON
GUTHRIE
DALLAS
POLK
JASPER
POWESHIEK
IOWA
JOHNSON
CEDAR
SCOTT
13
Missouri Valley
Harlan
12
Perry
Des Moines
DM Suburban
Newton
Grinnell
10
Iowa City
7
Davenport
POTTAWATTAMIE
CASS
ADAIR
MADISON
WARREN
MARION
MAHASKA
KEOKUK
WASHINGTON
MUSCATINE
LOUISA
Muscatine
Council Bluffs
4
Atlantic
11
5
Knoxville
Oskaloosa
Washington
16
MILLS
MONTGOMERY
ADAMS
UNION
CLARKE
LUCAS
MONROE
WAPELLO
JEFFERSON
HENRY
DES MOINES
Glenwood
Red Oak
Corning
Creston
Osceola
Chariton
Ottumwa
Fairfield
Mount Pleasant
Burlington
FREMONT
PAGE
TAYLOR
RINGGOLD
DECATUR
WAYNE
APPANOOSE
DAVIS
VAN BUREN
LEE
Shenandoah
Clarinda
14
15
Centerville
8
11
Fort Madison
Keokuk

NOTE:
(1) JI claims may be filed in all locations

LEGEND:

○ JOB SERVICE DISTRICT NUMBER--Solid Lines

JS Office ○——○ Satellite, Branch, or Sub Office

JS District Office ⊙

☐ SERVICE DELIVERY AREA NUMBER—Solid and Dotted Lines

JOB TRAINING PARTNERSHIP ACT

Introduction

The primary goal of the Job Training Partnership Act (JTPA) 1/ is to train workers for productive private-sector employment. It is the intent of the program for participants to remain employed after their participation in the program ends. In Iowa, JTPA is monitored by the State Job Training Coordinating Council, (SJTCC), which is appointed by the governor. SJTCC members are selected from business, industry, local government, state agencies, the legislature, and the general public. The Council developed a statewide coordination plan, which serves as the foundation for cooperation among the providers of training services.

State level administration of JTPA is the responsibility of the Iowa Department of Economic Development. At the substate level, Iowa is divided into 16 service delivery areas, each with an administrative entity whose policies and programs are overseen by a private industry council and a board of local elected officials.

At the federal level, JTPA consists of five titles or categories. These categories were designed so that each state could construct individual programs tailored to meet local needs but within federal guidelines. The federal Act consists of the following titles:

I. General Administration
Establishes an administrative framework and describes planning procedures.

IIA. Training Services for the Economically Disadvantaged
Part A represents a majority of the training to be conducted.

IIB. Summer Youth Employment
Part B allocates funds for separate job training programs for economically disadvantaged youth.

III. Employment and Training for Dislocated Workers
Establishes a program for workers who have been severed from previously held jobs through layoffs, plant closings and other factors. Also, dislocated farmers who meet eligibility requirements can be served.

IV. Federally Administered Programs
Authorizes the Department of Labor (DOL) to administer other programs outside the standard JTPA system (i.e., Job Corps and veterans).

1/ The general information about the Job Training Partnership Act included in this report has been furnished by the Iowa Department of Economic Development.

V. Miscellaneous Provisions
Amends other federal laws and creates greater potential to coordinate job training with selected programs including Job Service of Iowa.

Program Participants

JTPA divides eligible program participants into four basic groups: economically disadvantaged persons, special groups who have extraordinary barriers to employment, dislocated workers (including those dislocated from farming operations), and low income older individuals.

Economically disadvantaged persons are those whose total family income falls below the federally established poverty level. This group also includes food stamp recipients and handicapped adults who meet certain income guidelines.

Special groups include the following classifications:

Handicapped Workers
Learning Disabled
Older Individuals
Veterans
Displaced Homemakers
School Dropouts
Chemically Dependent
Teenage Parents
Academically Disadvantaged
Limited English Language Proficiency
Legal Offenders

Dislocated workers are generally persons whose unemployment results from a plant closing or reduction in force or who have been out of work for a determined amount of time. Farmers who declare and show proof of probable foreclosure, bankruptcy or lack of profit during the last twelve months or inability to secure working capital may be served by JTPA.

JTPA Labor Market Information Requirements

Labor market information is required by the Job Training Partnership Act to meet the following needs: program planning and evaluation, economic analysis, economic development, resource allocation, job placement, job development, job search assistance, employability development, vocational counseling, and the administration of the work test for program eligibility. The following listing covers only data items actually specified in the wording of the Act. Within each of the four main categories, closely related data items are similarly grouped together.

Labor Force and General Population Information

Demographic information is required for population estimates, the number and characteristics of the population to be served, and the changing demographic patterns of the Iowa workforce.

Target Groups Specifically Identified:

- Native Americans (includes nonreservation as well as federally recognized "tribes, bands, or groups")
- American Samoans
- Migrant and seasonal farmworkers
- Eligible youth residing in rural areas
- Offenders
- Ex-offenders
- Handicapped
- Single heads of households with dependent children
- AFDC recipients
- School dropouts
- Economically disadvantaged and low-income persons
- Individuals 14 and 15 years old
- Youth, defined as those 16-21 years old
- Job Corps eligible youth, defined as those 14-21 years old
- Adults, defined as those 22 years old and over
- Young adults 22-24 years old
- Older (55 years and over) workers
- Veterans
  - Service-connected disabled
  - Vietnam era
  - Recently separated
- Dislocated workers
- Displaced homemakers
- Women
- Minority groups
- Individuals in the process of making career decision choices
- High School seniors entering the full-time labor market upon graduation
- Individuals with limited English-language proficiency
- Teenage parents
- Alcoholics
- Addicts

Ratio of economically disadvantaged youth to economically disadvantaged adults.

Employment data and rates, especially for use in the allocation process. Information is needed for determining areas of substantial unemployment, the excess number unemployed, and those individuals who have been unemployed 15 weeks or more.

Labor force participation, involuntary part-time employment, and full-time employment at wages less than the poverty level.

Supply of labor available from education and from training programs.

Forecasts of labor supply at the national and "subnational" levels.

Affirmative action and nondiscrimination data: race, color, religion, sex, national origin, age, and handicap.

Poverty and lower living standard income levels. Special mention is made of national, state, and local household budget data at different levels of living, including a level of adequacy, to reflect the differences of household living costs in regions and localities, both urban and rural.

An annual statistical measure of labor market related economic hardship in the state.

An annual report relating labor force status to earnings and income.

Information on Industries and Firms

The industrial composition of labor market areas.

Information regarding employment and economic conditions, especially if changes in labor market conditions require deviations from an approved job training plan. Special mention is made of the problems of employment in rural areas.

Private non-profit enterprises employing 500 or fewer employees.

Growth industries and jobs reflecting the use of new technological skills. This involves the identification of geographic and occupational areas of potential growth or decline, and an assessment of the potential impact of such growth or decline on individuals, industries, and communities.

Statistical data relating to permanent layoffs and plant closings, including information on the number of such closings, the number of workers displaced, the location of the affected facilities, and the types of industries involved.

Information on Occupations and Jobs

Current employment data by occupation and industry, based on the Occupational Employment Statistics program.

Projections of employment and openings by occupation for the state and designated areas within the state. Forecasts of labor demand are also called for at the national and "subnational" levels.

Description of job duties, training and education requirements, working conditions, and characteristics of occupations.

Occupational career and vocational exploration information enabling users to set "realistic career goals". Special mention was made of information on career opportunities in the armed forces.

Career information delivery systems, especially on-line computer systems.

Information on civilian manpower needs in military installations and on skilled workers critical to defense readiness.

Training and Placement Assistance Information

Job search information for use in job-seeking skills training and job clubs.

Information to determine when an individual cannot obtain employment within the commuting area (for relocation assistance purposes).

Job opportunities within the local labor market for which individuals could be retrained, and whether training opportunities for such employment opportunities exist or could be provided within the local labor market.

Employment opportunities located in another state for which workers could be trained.

Occupations determined to be in sectors of the economy which have a high potential for sustained demand or growth for which workers could be trained.

Regional or nationwide efforts to develop a labor force with skills that promote the use of renewable energy technologies, energy conservation, and the weatherization of homes occupied by low-income families.

Occupations for which demand exceeds supply are mentioned in terms of "industry-wide skill shortages" and "worker shortages". Workers are to be trained in these occupations.

Prevailing entry level wages and benefits. Individuals in on-the-job training shall be compensated by the employer at the same rates as similarly situated employees and at the prevailing rates of pay for individuals employed in similar occupations by the same employer. In addition, trainees are to receive benefits and working conditions at the same level and to the same extent as other employees doing the same type of work.

IOWA POPULATION DEVELOPMENTS

Between 1980 and 1986, the population of Iowa declined by 63,000 inhabitants. This decrease was caused by a drop in employment, combined with a corresponding rise in unemployment. Residents left the state in search of job opportunities in the South and West. Between 1980 and 1986 the Bureau of the Census estimates that there was a net loss of 167 thousand inhabitants as a result of out-migration. This movement of population has not been as drastic as may first appear. In each decade since 1940, more persons have left Iowa than moved into it. Between 1970 and 1980, a decade in which the state enjoyed above average economic growth and low levels of unemployment, Iowa lost a net total of 60,892 residents through out-migration.

In the current decade, the loss of nonagricultural jobs has been a major cause of the declining state population. However, non economic events have also influenced population trends. The period from 1945 to 1960 was characterized by the post war "baby boom". Part of the decreasing number of inhabitants results from the trend towards smaller families. This generation had fewer children than their parents. By 1989, it is estimated that the population of Iowa will number 2,842,884. However, all areas of the state have not been equally effected by these population changes. Central Iowa, particularly the Des Moines MSA has experienced a rising number of residents since 1980. Similarly, growth has occurred in Pottawattamie County (along the Missouri River), in addition to Johnson and Muscatine Counties in the eastern part of the state.

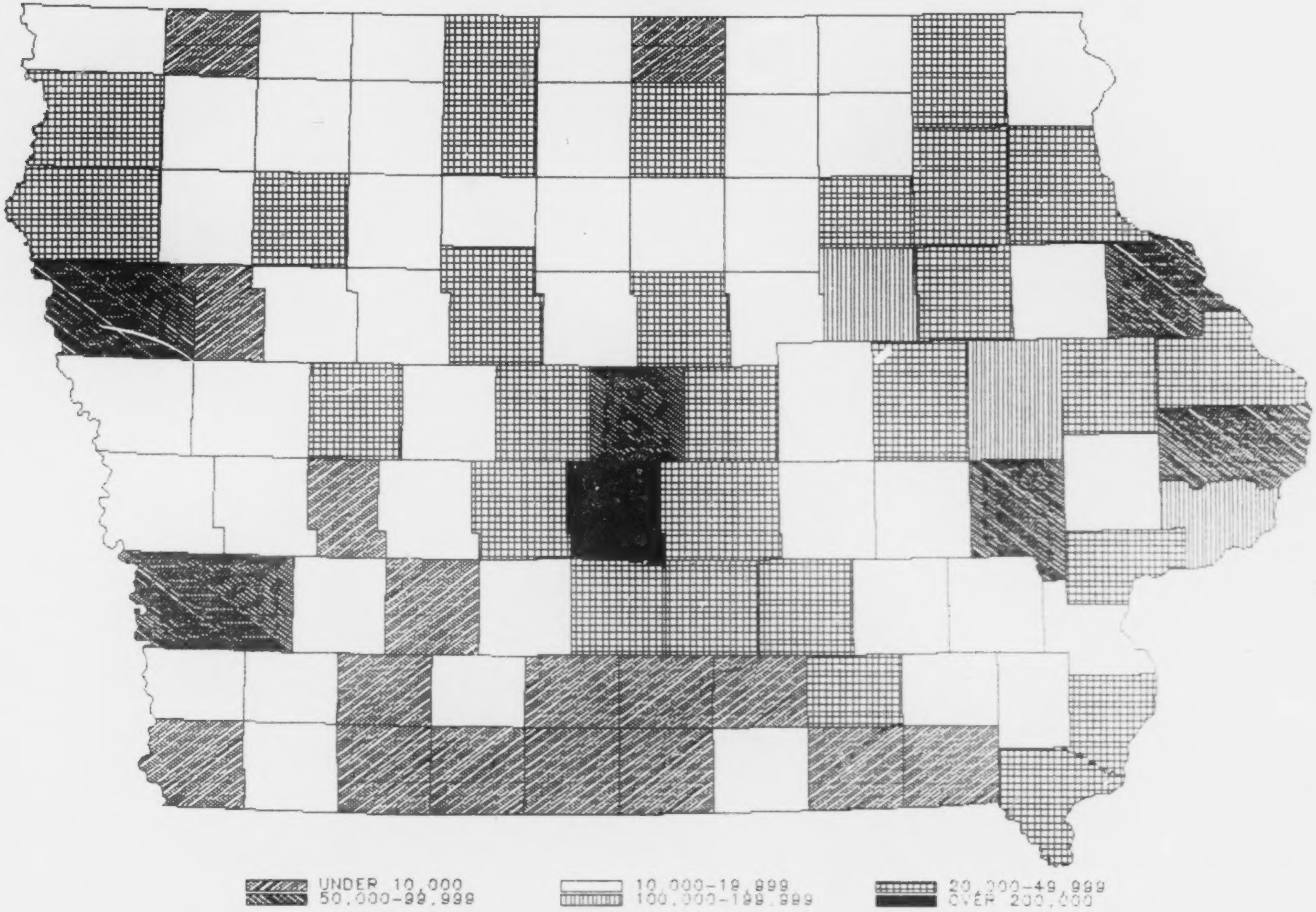
TABLE 2

TOTAL RESIDENT POPULATION OF THE UNITED STATES AND THE STATE OF IOWA 1940 - 1990

	POPULATION		PERCENT CHANGE		IOWA AS PERCENT OF U.S.
YEAR	**U.S.**	**IOWA**	**U.S.**	**IOWA**	**IOWA**
1940	132,165,129	2,538,628	---	---	1.9%
1950	150,844,547	2,621,073	14.1	3.3	1.7%
1960	179,325,671	2,757,537	18.9	5.2	1.5%
1970	203,235,298	2,822,991	13.3	2.4	1.4%
1980	226,504,825	2,913,808	11.4	3.2	1.3%
1990	249,891,000	2,834,131	10.3	-2.7	1.1%

Data for the United States (1940 - 1990) and Iowa (1940 - 1980) was provided by the U.S. Department of Commerce, Bureau of the Census. The Iowa population projection for 1990 was developed by the Labor Market Information Unit, Iowa Department of Employment Services.

IOWA POPULATION BY COUNTY
1986


▨ UNDER 10,000
▨ 50,000-99,999
☐ 10,000-19,999
▥ 100,000-199,999
▦ 20,000-49,999
■ OVER 200,000

SOURCE: U.S. DEPARTMENT OF COMMERCE. BUREAU OF THE CENSUS

Sex: Women continue to outnumber men as a result of their greater life expectancy. However, between 1980 and 1986, the number of male births exceeded female births in the state. In contrast, both sexes have experienced a population decline in those age groups younger than age twenty-five, in addition to a decrease in persons between fifty and fifty-nine.

Age: The 1980 Census recorded a median age of thirty, with the average for women being nearly three years older than that for men. However, because the decrease in the under twenty-five population has exceeded the decline in all other age groups, the average age has increased. This was partially caused by a declining number of births. One reason for the declining Iowa birthrate has been the national trend towards smaller families. Also, much of the out-migration which the state has experienced may have occurred in the primary "child bearing" age groups.

Race: Between 1980 and 1989, the number of black Iowans is expected to have grown by 2,600 persons. This is in contrast to the experience of the white population, which has decreased during the decade. It appears that fewer black residents have left the state in response to economic pressures. The greatest increase occurred in central Iowa, an area which already has a comparatively large black population. While the number of black Iowans has increased at most age levels, there has been a decline in those brackets between fifteen and twenty-four. However, this has not been as drastic as the drop in the white population in the same age group.

In the decade prior to 1980, there was an influx of "other nonwhites" into Iowa. This was a direct result of the large number of Southeast Asian refugees who were welcomed to the state in the aftermath of the Vietnam war. During that period, the "other nonwhite" population of Iowa more than tripled. Thirty-eight percent of the additional residents settled in the Des Moines MSA. The "other nonwhite" population of the Des Moines area increased by more than 800 percent during that period. Smaller, but still dramatic, increases occurred in most Iowa population centers. The most important reason that such a great number of refugees settled in the Des Moines area was the availability of services, such as the Iowa Refugee Service Center. Since 1980, there has continued to be an increase in the "other nonwhite" population. Within this category, only the age groups younger than fifteen have experienced any declines.

LABOR FORCE CHARACTERISTICS AND TRENDS

In the decade prior to 1980, the Iowa labor force grew considerably faster than the state population. While the number of residents climbed by only 3.2 percent (+ 99,887) during the decade, the state labor force increased by 28.5 percent (+ 321,600). A rapidly expanding labor force was needed for the nearly 219,000 nonagricultural jobs which were created in Iowa during the decade. Population growth by itself was not sufficient to fill these new positions. It was the entrance of large numbers of women and young persons that provided Iowa employers with their most important source of additional workers.

Despite decreases in the early part of the decade, the state of Iowa recorded a larger labor force in 1987 than had been counted in 1980. This was occuring at the same time that the population was declining. One cause of the growing labor force was the continuing increase in the labor force participation of women. By 1989, it is estimated that the female labor force will have grown by 9.5 percent, while the number of males is expected to have climbed by less than 1 percent. Between 1979 and 1983, the Iowa manufacturing and construction industries decreased by 82,000 workers. The majority of workers in these industries are male. Therefore, if a large number of men became unemployed, additional females may have entered the labor force in order to minimize the loss of family income. This continues a trend that began prior to 1970. Women have entered the labor force in growing numbers for both personal and financial reasons. Their

TABLE 3

IOWA LABOR FORCE PARTICIPATION RATES
1989

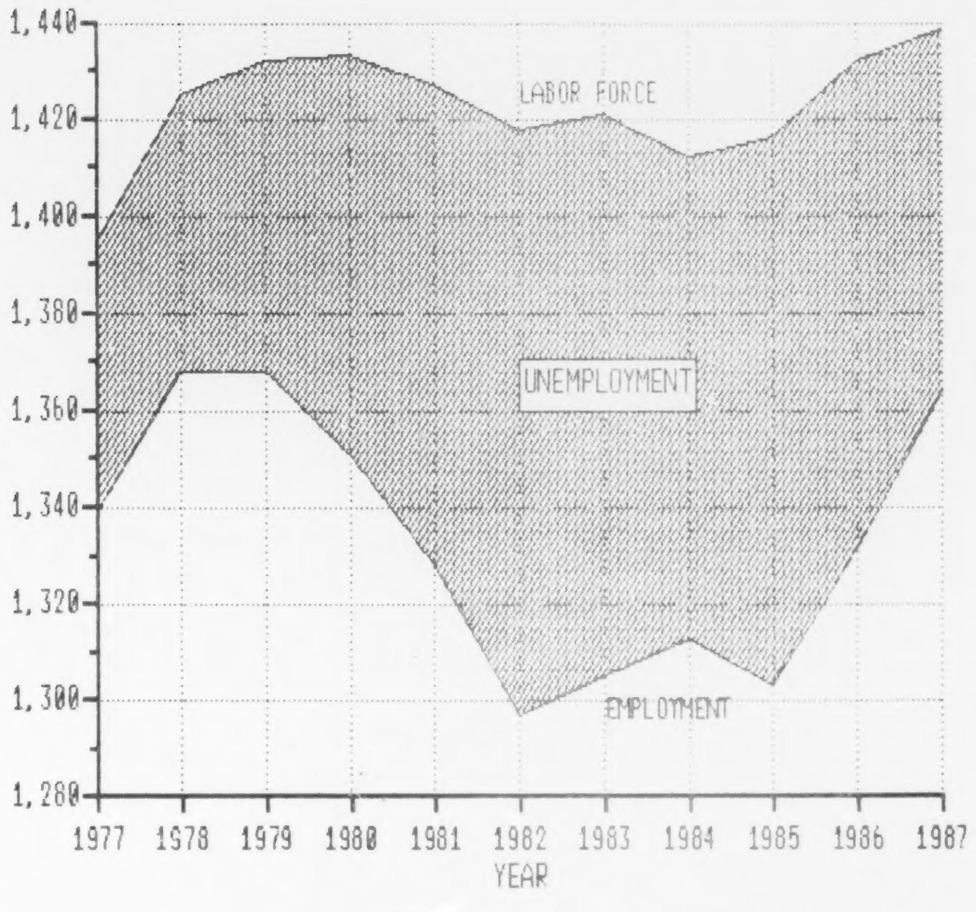
	Total - All Races			White			Black			All Other		
Age	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**
TOTAL	**69.3**	**78.5**	**60.3**	**69.3**	**78.3**	**60.4**	**69.9**	**81.7**	**58.6**	**68.9**	**84.5**	**54.0**
16-19	60.5	60.4	60.6	61.3	61.1	61.4	39.4	39.7	39.2	47.8	49.0	46.6
20-24	80.9	87.0	74.7	81.2	86.6	75.6	74.7	93.6	56.1	74.5	99.3	51.4
25-29	85.2	96.6	73.9	85.4	96.4	74.5	81.8	99.3	62.5	78.8	99.3	57.0
30-34	85.4	98.2	72.3	85.5	98.2	72.7	85.1	99.3	68.6	79.9	99.3	58.5
35-44	87.6	96.3	78.9	87.7	96.5	79.0	82.5	87.4	77.6	83.4	92.7	74.7
45-54	81.1	92.8	70.0	81.1	92.6	70.0	82.7	99.4	68.1	83.3	99.3	68.8
55-59	63.9	78.2	50.5	64.0	78.2	50.6	58.8	72.7	48.3	64.3	84.1	45.4
60-64	48.0	60.5	36.8	48.0	60.4	36.7	53.0	65.1	44.1	50.6	70.9	32.2
65 +	16.3	22.0	10.8	16.2	22.1	10.5	26.2	14.4	33.1	15.2	16.3	14.4

SOURCE: Labor Market Information Unit, Department of Employment Services

participation became increasingly important during periods of high price inflation when the additional income was needed to maintain standards of living. By the beginning of the next century, the Bureau of Labor Statistics estimates that the labor force participation of men and women will be nearly equal.

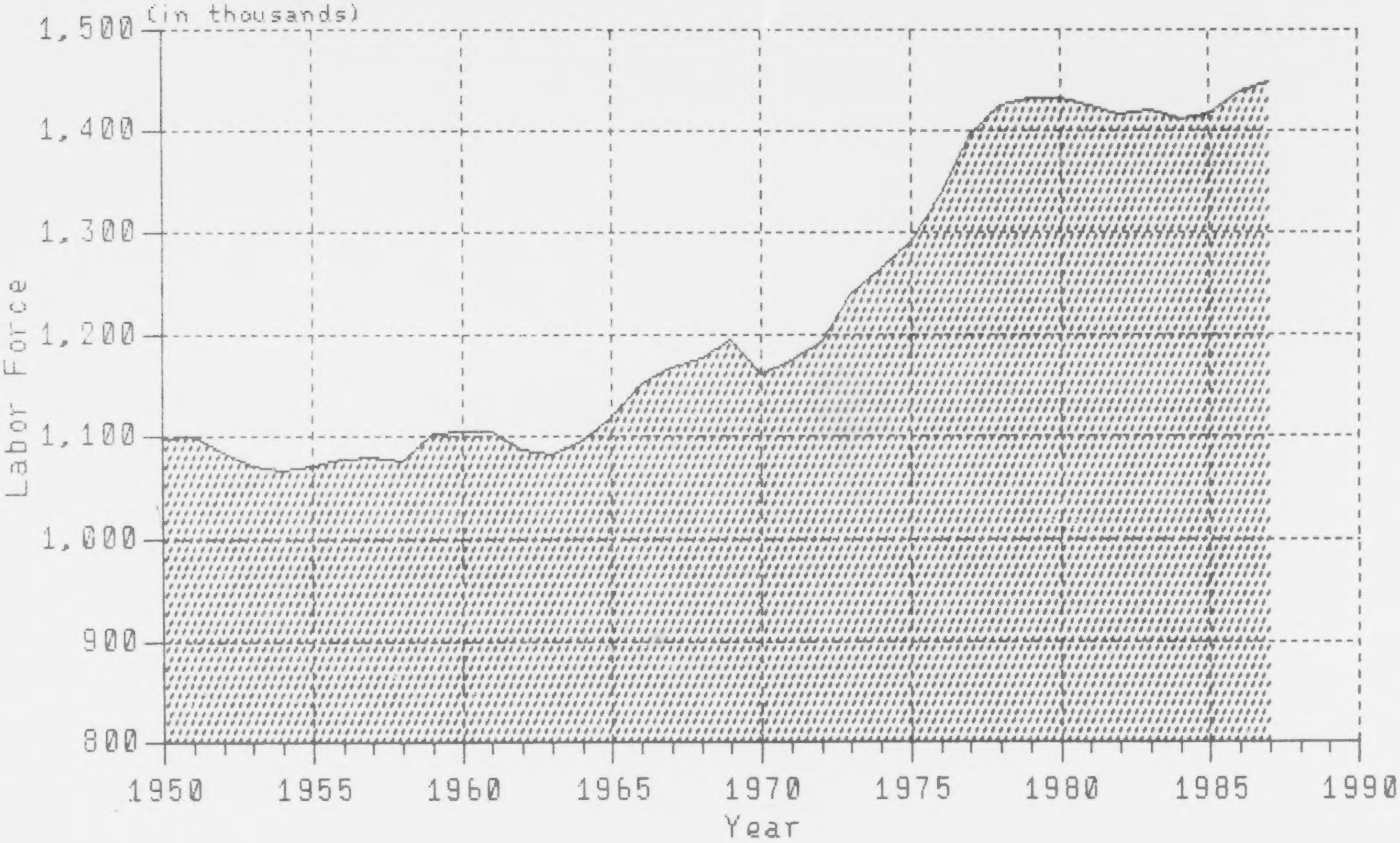
By 1989, the Iowa resident civilian labor force is expected to average 1,435,280 persons. This is higher than the 1980 level of 1,432,000 workers. The Iowa labor force would have been larger had the state population not declined. However, it may grow smaller after 1990 if the Iowa population decrease is not reversed.

IOWA LABOR FORCE AND UNEMPLOYMENT
1977 - 1987



SOURCE: LABOR MARKET INFORMATION UNIT, DEPARTMENT OF EMPLOYMENT SERVICES

IOWA RESIDENT CIVILIAN LABOR FORCE
1950 - 1987



SOURCE: LABOR MARKET INFORMATION UNIT, DEPARTMENT OF EMPLOYMENT SERVICES

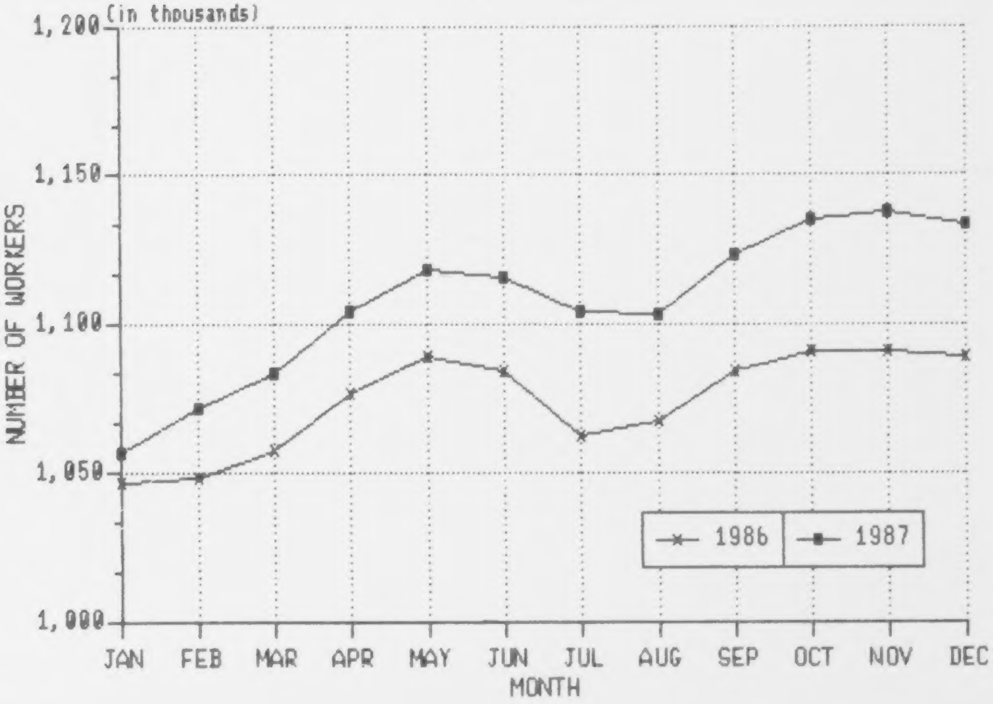
EMPLOYMENT DEVELOPMENTS BY INDUSTRY

Construction

Iowa construction employment declined by 200 workers in 1987. With the sole exception of 1984, this industry group has experienced falling job levels in each of the past nine years. During 1987, 35 thousand workers were employed in construction. In contrast, national building employment has grown in each of the past five years.

During the current decade, Iowa has undergone a decrease in industrial investment. Between 1969 and 1978, the state increased its share of national investment expenditures from 1.2 percent to 1.5 percent of the total; this portion had dropped to 1.0 percent by 1983. This decrease resulted in a drop in the number of Iowa construction employees. However, during 1987, there was an increase in some kinds of capital investment. The number of square feet built for banks and office buildings, warehouses, school and college classroom buildings, hospitals and health treatment buildings, in addition to houses of worship, all grew during the past year. These gains were partially balanced by a drop in street, highway, and bridge construction.

TOTAL NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT
STATE OF IOWA
1986 - 1987



SOURCE: REPORTING UNIT, DEPARTMENT OF EMPLOYMENT SERVICES.

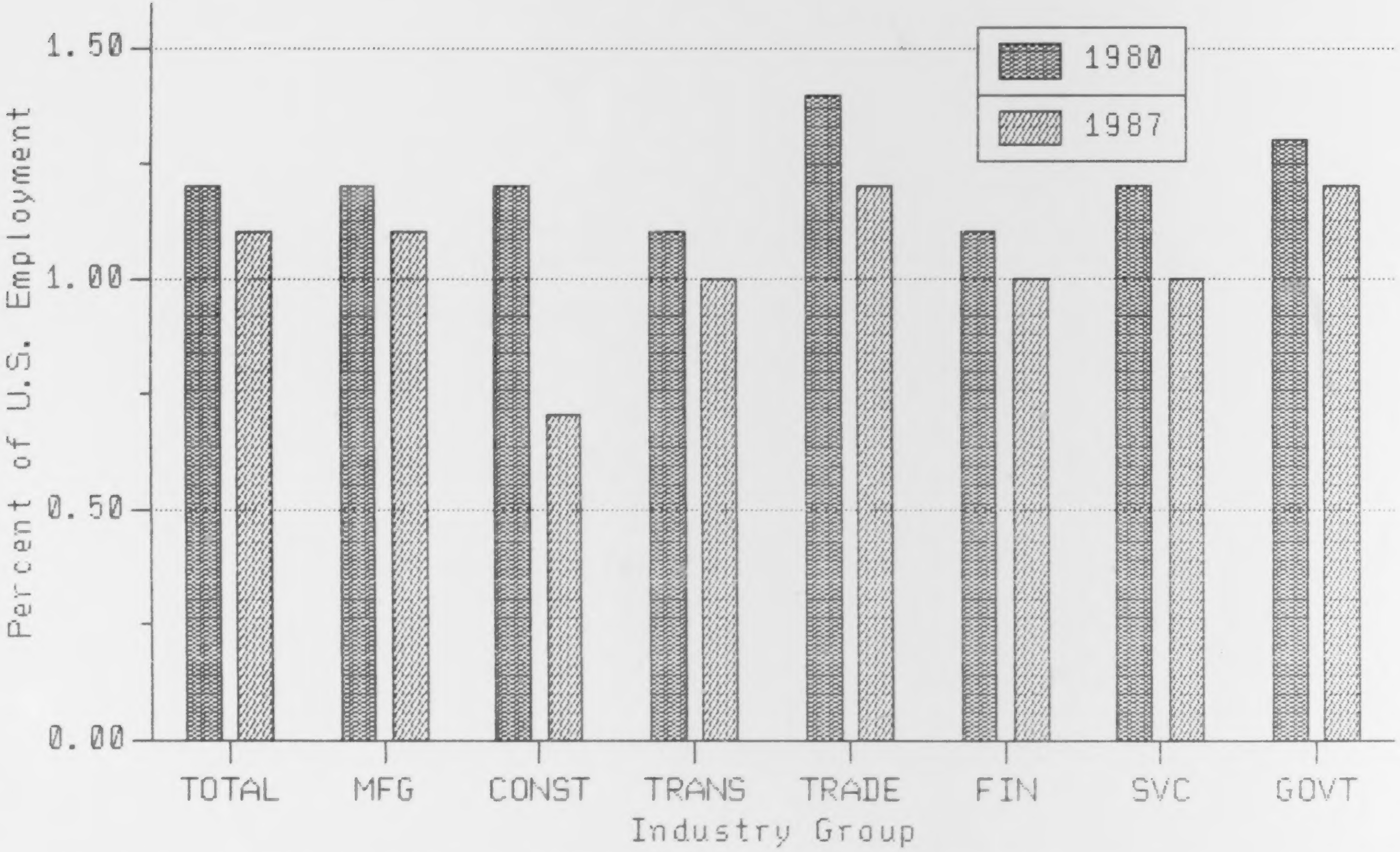
Durable Goods Manufacturing

After declining for six consecutive years, the stone, clay, and glass industry group added workers in both 1986 and 1987. In Iowa, the largest portion of this industry is engaged in the production of concrete products, such as ready-mixed concrete and hydraulic cement. During the past decade, this industry has had to adjust to increased competition from imports. Nationally, between 1977 and 1987, imports climbed from 5 percent to 19 percent of tons of cement consumed. While Iowa producers employ a smaller percentage of concrete workers than the national average, they have been able to increase their share, particularly during 1987. Because the state has experienced a decline in its construction employment during the current decade, one may infer that an increasing proportion of its concrete output is being exported to other states. The concrete products industries are expected to continue to record employment growth, partially as a result of the anticipated increase in Iowa bridge and road construction. For the same reason, the number of persons employed in the national concrete industry is also expected to rise.

Since 1980, the lumber and wood products industry has added 2,300 workers, with the largest one year increase occurring in 1987. In Iowa, the majority of workers in this category are involved in the manufacture of fabricated millwork, which consists of awnings, dormers, baseboards, panels, stair railings, and window frames. This industry has benefitted from the growth in residential construction, in addition to the demand for products used in home repair and remodeling. Since 1982, the Iowa millwork industry has grown far more rapidly in Iowa than in the United States as a whole. However, even after five years of employment increases, the Iowa lumber and wood products industry continues to employ a smaller percentage of nonagricultural employment than the national average. Because the majority of Iowa millworkers are engaged in the production of windows, the state industry has not been significantly effected by the growing consumer preference for steel doors. Nationally, it is anticipated that employment in the millwork industry will remain stable. However, because Iowa manufacturers have been increasing their share of national millwork employment, they are expected to continue adding workers.

The Iowa primary metals industry grew during 1987, after two consecutive years of decline. Nationally, this industry has decreased its employment level in six of the past seven years. In Iowa, the largest component of primary metals produces aluminum sheet, plate, and foil. Aluminum was able to recover from several years of decline as a result of low inventories and increased worldwide demand. Aluminum manufacturing is very energy intensive. American producers pay more for energy (especially electricity) than the majority of their foreign competitors. Until 1983, the United States was a net exporter of aluminum. Between 1983 and 1985, imports increased at an annual rate in excess of 38 percent. Domestic producers have had difficulty competing with foreign aluminum manufacturers who benefit from government subsidies and protected markets. Japan, a major supplier of aluminum sheet, has agreed to reduce its tariffs on American aluminum to parity. The European economic community, while reducing its tariffs, will continue to charge duties above the American level. Under domestic trade regulations, a nation is charged a reduced rate if it exports metal which it purchased in the United States and processed abroad.

IOWA SHARE OF NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT
(BY MAJOR INDUSTRY GROUP)
1980 AND 1987



SOURCE: LABOR MARKET INFORMATION UNIT, DEPARTMENT OF EMPLOYMENT SERVICES

This has the effect of increasing competition for aluminum sheet products manufacturers who have facilities in Iowa. These difficulties may be partially mitigated by the declining value of the dollar against major European currencies. In addition, increased demand by the transportation, defense, and packaging industries is expected to produce additional sales of aluminum products. The combination of a declining dollar, decreasing foreign tariffs, and rising demand should produce higher employment levels in Iowa facilities.

Farm machinery continues to constitute the largest component of the Iowa machinery manufacturing industry. During 1987, 2,000 workers were added to this industry group. However, in the previous year there was a labor dispute at Deere and Company which was four months in duration. Had this dispute not occurred, there would have been no significant change in employment levels. Since 1980, the number of workers employed in Iowa farm machinery manufacturing plants has dropped by half. It had been anticipated that increased federal payments to farmers would result in greater machinery sales. However, because acceptance of these subsidies required acreage reductions, farmers (nationally) withdrew 60 million acres from cultivation. This had the effect of adding to the already depressed demand for equipment. Also, much of the additional farm income was used for debt reduction. For these reasons, sales of tractors and combines continued to decline in 1987.

Sixty-two percent of tractors sold in the United States were rated at less than 40 horsepower. These small tractors are no longer produced domestically, although many are marketed by American manufacturers. It is no longer certain that increased demand for farm machinery will guarantee additional sales (and jobs) for companies based in the United States. These conditions have had an especially severe effect on the Iowa economy because the proportion of Iowa workers employed in the farm machinery industry is twelve times as high as the national average. While the state accounts of only 1.1 percent of American nonagricultural employment, it provides jobs for 13.4 percent of workers in the farm machinery industry.

The labor dispute at Deere and Company, which affected the farm machinery industry, also resulted in reduced construction machinery employment during 1986. Therefore, while Iowa construction machinery manufacturers added 700 workers in 1987, they would have recorded a decreased number of employees if this dispute were not taken into account. Since 1980, employment in this industry has dropped to slightly more than half of its previous level. This parallels national trends during the same seven year period. During this decade, there has been a steady decline in exports. At the same time, imports of construction machinery have more than doubled. In 1981, the value of exported construction machinery was nearly ten times the value of imports. By 1987, this surplus had disappeared. One reason for the loss of international markets is the high cost of labor and material, particularly iron and steel. This cost disadvantage combined with a highly valued dollar to place domestic producers in an unfavorable competitive position. During this period, American construction machinery manufacturers have invested in foreign facilities. Therefore, much of the imported equipment is being sold with domestic labels. Construction machinery is very important to Iowa because the percentage of workers employed in this industry is five times the national average. However, during 1987, J.I. Case shut its Bettendorf plant. This is expected to be followed by the closing of the Caterpillar Tractor plant in Davenport. These shutdowns will have a particularly severe effect on employment in Scott County, on the eastern border of Iowa.

During 1987, the Iowa electrical equipment industry added 2,000 workers. This industry has grown in each of the past four years. Nationally, the electrical machinery and equipment manufacturing industry has been declining. In Iowa, radio, transmitting, and detection equipment employs the greatest number of these workers. Many of the additional employees were hired by Rockwell International, which has a plant in Cedar Rapids. Much of the growth in this industry can be attributed to both civilian and military purchases by the federal government. However, there continues to be strong demand for commercial and industrial electronic equipment. During 1987, federal purchases accounted for half of sales by this industry. Search and detection, in addition to navigation and guidance systems and equipment, comprised the largest portion of these sales. The outlook for electrical equipment manufacturing will continue to be dependent on the level of military spending. However, even if these budgets are reduced, there will still be a demand for high-technology military electronic equipment. Also, the Federal Aviation Administration (FAA) is planning to replace landing systems throughout the United States. This project will also have a positive effect on employment in the electrical equipment industry.

In addition to defense related products, the Iowa electrical equipment industry employs an estimated 6,200 persons in the manufacture of household appliances. In 1987, the household appliance industry experienced record sales. New housing starts were the primary reason for this growth. In addition, there was an increase in consumer expenditures for remodeling purposes. These purchases have benefitted Iowa manufacturers, such as Amana Refrigeration and the Maytag Company. If the national economic expansion continues into 1988, employment in the appliance manufacturing industry should increase.

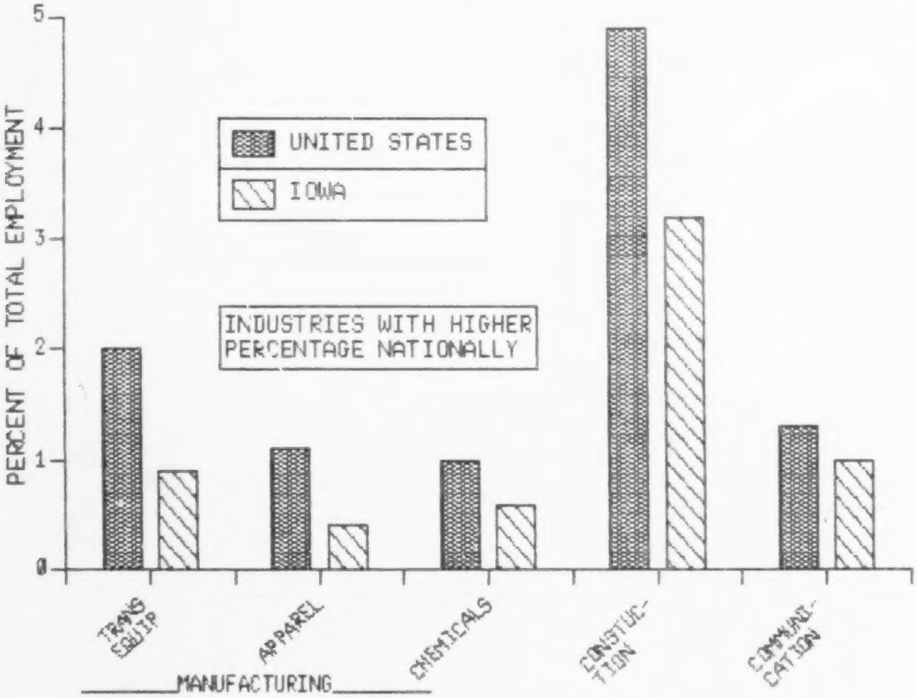
While Iowa does not contain a large motor vehicle manufacturing industry, in excess of 10,000 of its workers are engaged in the production of transportation equipment. The two dominant segments of this industry are motor vehicle parts and accessories and motor homes. Between 1980 and 1987, the transportation equipment industry added 3,000 employees. Nationally, demand for parts and accessories has been growing slowly as a result of declining domestic automobile production. In Iowa, it is motor home manufacturing that has provided the greatest job growth among the transportation equipment industries. Motor home sales are very cyclical and will depend on the general prosperity of the American economy.

Nondurable Goods Manufacturing

In Iowa, meat packing constitutes the largest segment of the food and kindred products industry group. Nationally, the meat packing industry has recorded increased employment in each year since 1983, while Iowa plants have added workers in both 1986 and 1987. There has been a long-term downward trend in the demand for red meat. This is partially the result of a change in consumer preferences, away from beef and pork, and towards poultry. For this reason, 1987 was the first year in which more poultry than beef was consumed in the United States. In the nation as a whole, the packing plant and poultry dressing industries are nearly equal in terms of employment. However, in Iowa, 35 percent of persons who work in the food and kindred products industry are employed in meat packing plants, while poultry accounts for less than 5 percent of these workers. Therefore, the shift in sales away from red meat has contributed to a movement of jobs away from Iowa and towards states with larger poultry industries.

Since 1980, the Iowa printing and publishing industry has added 1,700 workers. While the total publishing industry has grown in each year since 1982, newspapers, its largest component, decreased in both 1986 and 1987. Part of the decline in newspaper employment may be attributed to technological changes which have resulted in greater manufacturing efficiencies. In Iowa, a higher proportion of nonagricultural workers are employed in printing and publishing than the national average. One reason for the relative importance of the Iowa publishing industry is the location of the Meredith Corporation, a producer of several national magazines, in Des Moines. The city also contains the Des Moines Register, which is the largest newspaper in the state. Publishing is one of the few industries which enjoys a trade surplus. Particularly in Europe, there is a demand for American magazines. As a result of the declining value of the dollar, European distributors of these publications have been able to reduce prices.

EMPLOYMENT DISTRIBUTION BY SELECTED INDUSTRY
UNITED STATES AND IOWA
1987



During 1987, the Iowa rubber and miscellaneous plastics industry added 1,000 employees. Plastics employ the largest number of workers in this category. The plastics industry has been increasing its sales because the product is used in electronics equipment, automobiles, construction, packaging, and a variety of consumer goods. The demand for plastics is expected to increase as part of the long-term trend towards substitution of plastic for other materials. However, since 1985, the United States has experienced a negative trade balance in this product. Taiwan and Canada have been the leading foreign supplies of miscellaneous plastics products. Therefore, increased sales of this material may not result in higher employment levels for those plants which are located in Iowa.

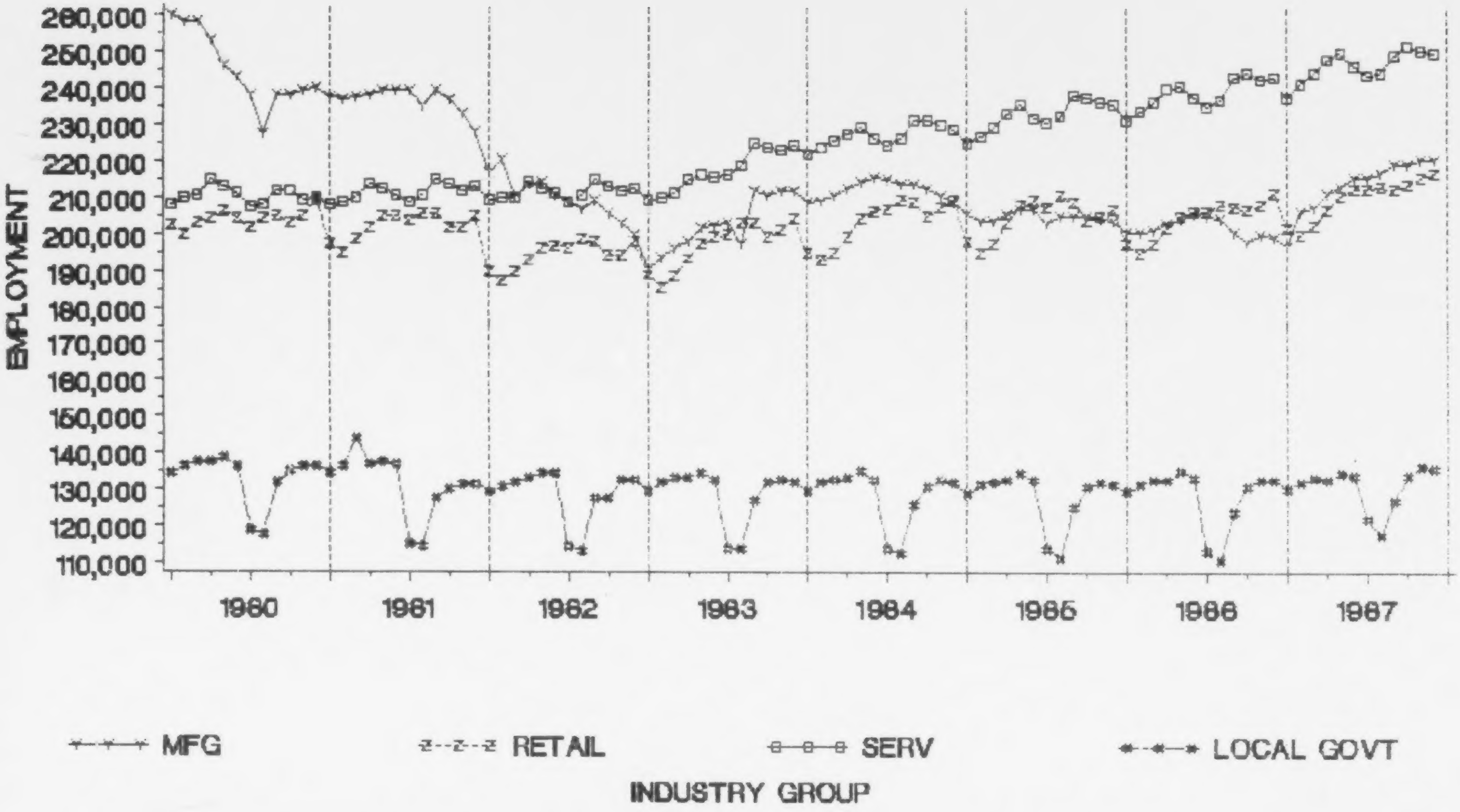
Tires and inner tubes comprise the second largest component of the Iowa rubber and plastics industry. The volume of tire production is heavily dependent upon trends in the automobile manufacturing industry. Because of the declining American share of worldwide automobile and farm machinery manufacturing, there has been a corresponding decrease in domestic tire production. By 1985, the United States accounted for less than a third of all tires manufactured. In addition, the increased use of long mileage radial tires has caused a drop in the demand for replacement units. However, if fuel prices remain stable the number of miles driven is expected to increase. This will add to the demand for replacement tires and have a positive influence on employment in the tire industry.

Transportation, Communications

The Iowa transportation and communication industry group added 1,400 employees in 1987, for the largest increase in the past decade. The largest number of employees in this category are engaged in trucking. The growth in demand for small package delivery has benefitted the trucking industry. In addition, several manufacturers and distributors have adopted a "just-in-time" inventory system in which parts and other material are delivered when needed. This reduces space requirements for warehouse facilities. The trucking industry has benefitted from this system because of the need for a constant flow of material. Nationally, the deregulation of the industry has permitted the entry of a greater number of new carriers. However, in Iowa, there has been a drop in the number of trucking establishments. This decrease was caused by the decline in construction and manufacturing, which reduced the available cargos.

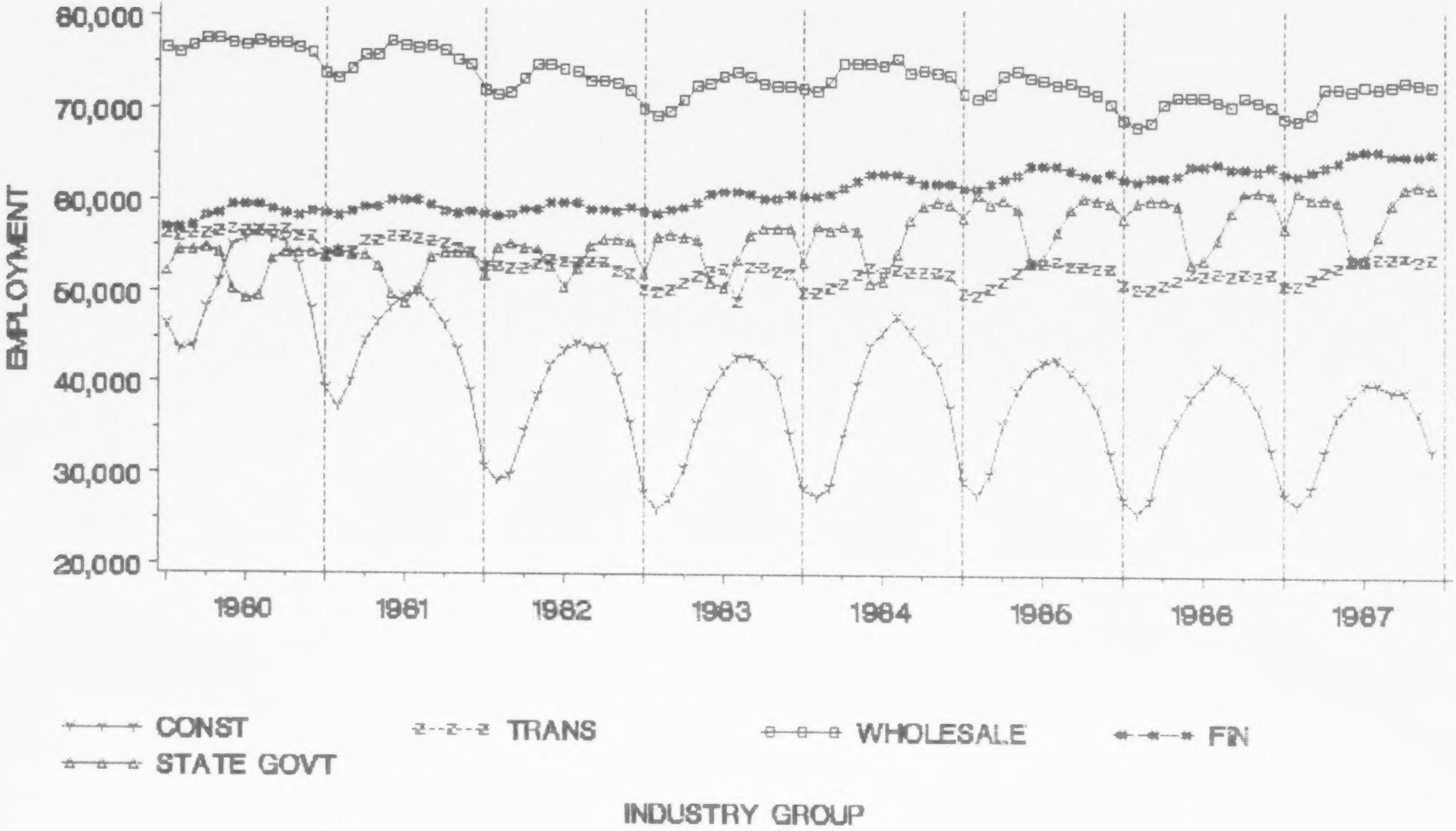
Telephone communications employs the greatest number of workers in the Iowa communications industry. Since 1980, this industrial category has decreased by 3,000 employees, for a decline of 20 percent over the seven year period. Nationally, it has experienced steadily growing revenues as a result of its expansion into data transmission. However, there has not been a corresponding increase in employment levels. Automated accounting systems have permitted a reduction in the number of clerical workers. In addition, some equipment malfunction can be diagnosed and repaired from remote locations, thereby permitting a decrease in maintenance employees.

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT FOR SELECTED INDUSTRIES
STATE OF IOWA
1980 - 1987



SOURCE: LABOR MARKET INFORMATION UNIT. IOWA DEPARTMENT OF EMPLOYMENT SERVICES.

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT FOR SELECTED INDUSTRIES
STATE OF IOWA
1980 - 1987



SOURCE: LABOR MARKET INFORMATION UNIT. IOWA DEPARTMENT OF EMPLOYMENT SERVICES.

Trade

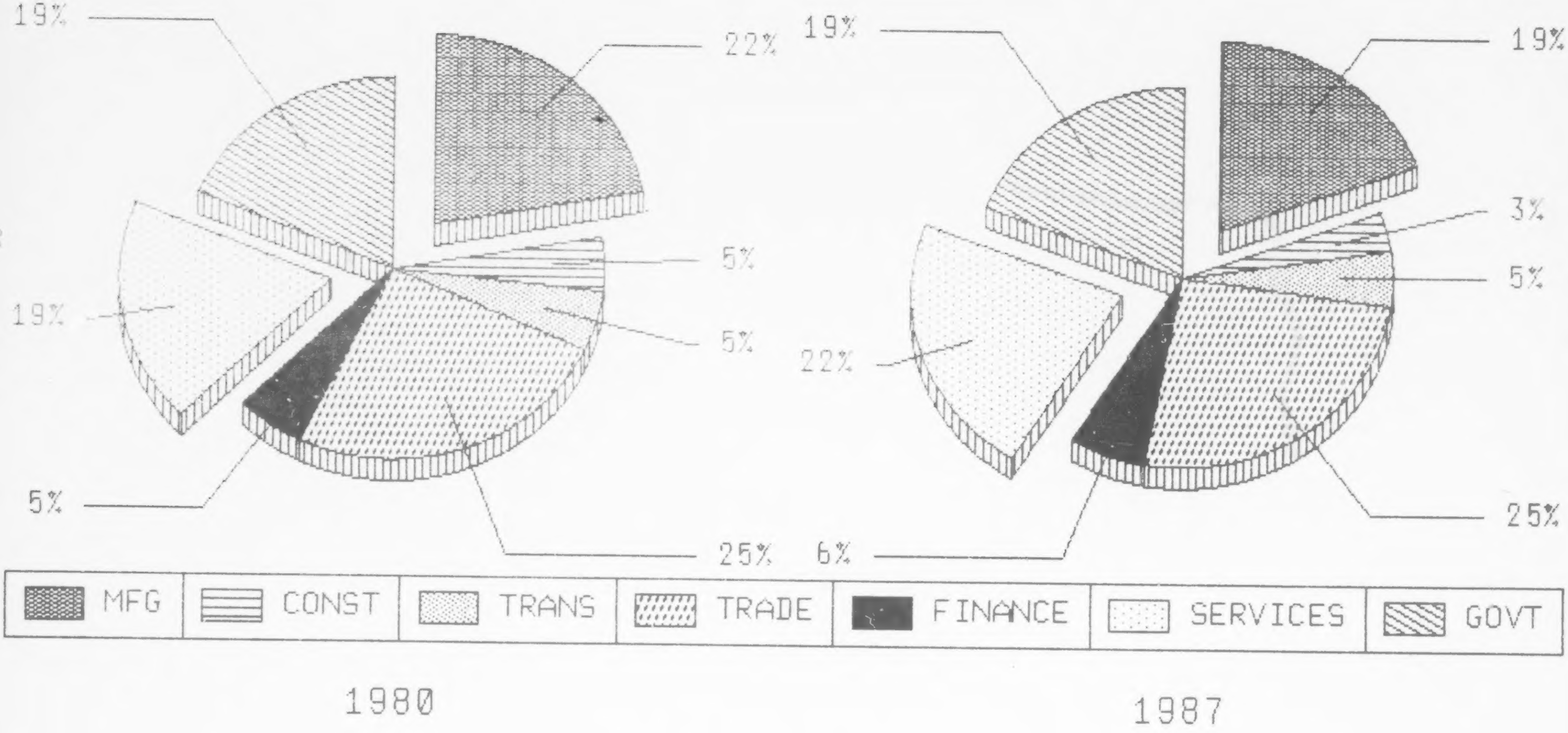
During 1987, the wholesale trade industry group grew by 1,400 employees, after decreasing in the previous two years. In Iowa, employment in this industry is heavily dependent on the agricultural economy. Therefore, farm machinery (durable goods) and farm supplies (nondurable goods) employ 25 percent of the wholesale workers in the state. These industries have added workers as a direct result of the improvement in farm income. Nationally, wholesale employment has grown in each of the past five years. In the United States, it is estimated that 70 percent of manufacturing output was sold through wholesalers during 1987. However, both foreign and domestic producers are selling directly to large retailers. In some cases, retailers operate foreign factories which ship products back to the parent company, thereby bypassing wholesalers. These trends may result in reduced wholesale employment.

Retail trade added 5,700 employees, for its largest one year gain since 1978. In excess of a third of this growth resulted from the expansion of the restaurant industry. Because total employment increased, additional money was available for eating away from home. In addition, there has been an increase in the number of franchised "fast foods" establishments. There has also been an expansion in home delivery services. Both traditional restaurants and fast-foods companies face competition from other kinds of businesses, such as supermarkets and department stores. This may have a limiting effect on future growth.

General merchandise (department store) employment grew by 19 percent (1,100 workers) in 1987. One reason for these additions is the increased income which higher employment levels has made available. Also, new stores have opened in several parts of the state. These developments are in contrast to the previous year, when several Iowa department stores closed. Nationally, several trends have benefitted this industry. K-Mart and Sears Roebuck have both sold foreign subsidiaries in order to expand domestically. Wal-Mart, with several Iowa stores, plans to create "hypermarkets", which are combination food/department stores. In addition, many general merchandise stores have added non traditional services, such as watch repair, dry cleaning, automotive service, and furniture reupholstering. Department stores have also invested in the upgrading and remodeling of existing facilities. Stores with improved lighting and fixtures have often experienced double digit improvement in sales.

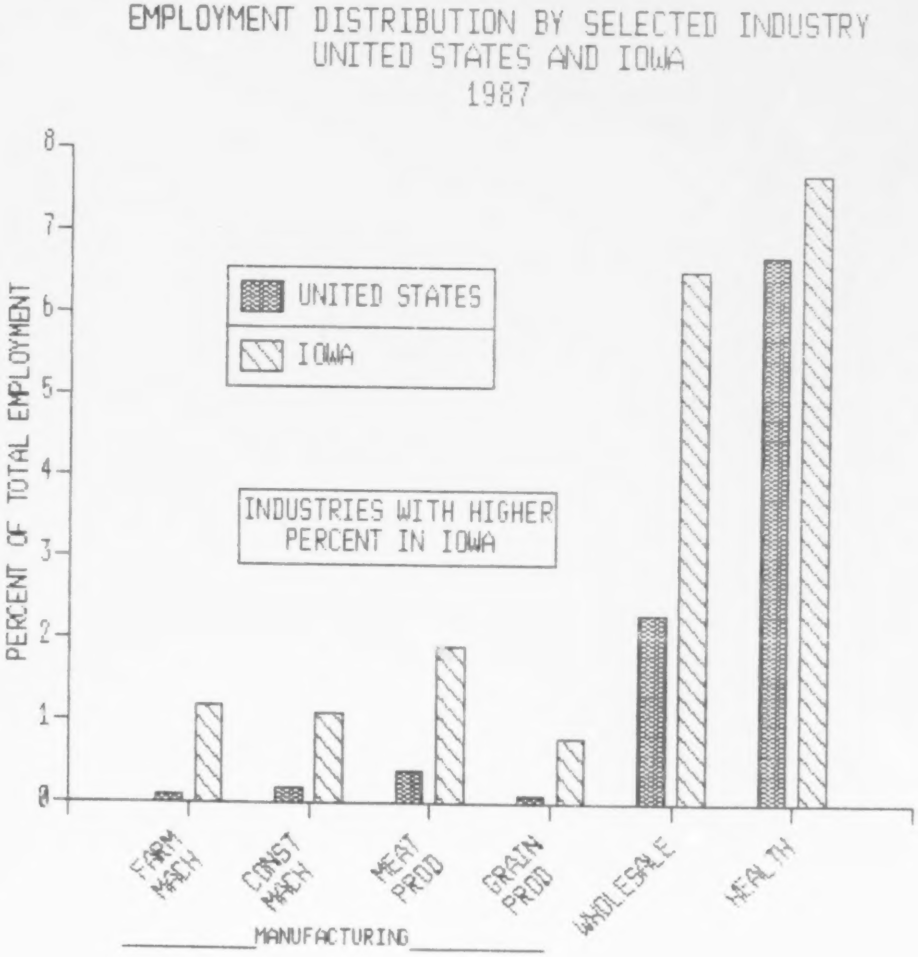
Food stores, employ 16 percent of Iowa retail workers. During 1987, this industry added nearly 1,100 employees. Part of the increase was the result of the addition of new convenient stores in several Iowa communities. In a manner similar to department stores, supermarkets have invested in the remodeling of existing facilities. The majority of these stores now utilize computer directed checkout (scanning) systems. This provides sales and product information by individual store. Retailers can utilize this data to improve their product mix and enhance revenues. Finally, during 1987, food store employment may have been helped by the closing of the Iowa state liquor stores. Many retailers added packaged liquor to their product lines.

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PERCENT
STATE OF IOWA
1980 AND 1987



Finance, Insurance

Banking, the largest component of the Iowa finance industries, recorded decreased employment levels in both 1986 and 1987. Many banks have sustained losses due to the poor performance of agricultural loans. However, banks in the energy producing states of the south and west have also experienced reduced earnings. In addition, some of the largest banks in the United States have suffered losses on loans to developing nations. The banking industry has also had to compete with other institutions for both loans and deposits. For example, an increasing number of automobile loans are being processed by manufacturer-affiliated finance companies. Employment in the banking industry has also been influenced by technological advances. Consumers are making increasing use of automatic teller machines, which has decreased the need to build bank branches. Another technological development has been the growing use of point-of-sale terminals which permit funds to be directly transferred from the account of the buyer to that of the seller. The combined effect of these developments may be to reduce the need for bank employees.



In contrast to banking, the Iowa insurance industry added 1,000 workers during 1987, The majority of persons employed in this industry are located in the Des Moines MSA. Nationally, insurance has benefitted from low inflation and increased disposable income. In Iowa the two largest sectors of this category are life insurance and property/casualty insurance. Companies which sell life insurance receive a quarter of their income from investments and the balance from premiums. In addition to traditional life insurance policies, the industry has expanded its product line to include private pension plus, universal life insurance (which is partially an investment plan), Individual Retirement Accounts (IRA), and profit-sharing plans. These investment instruments have enabled the insurance industry to compete with traditional security brokers. Iowa has benefitted from this expansion because, in terms of employment, life insurance is six times as large as the state securities industry.

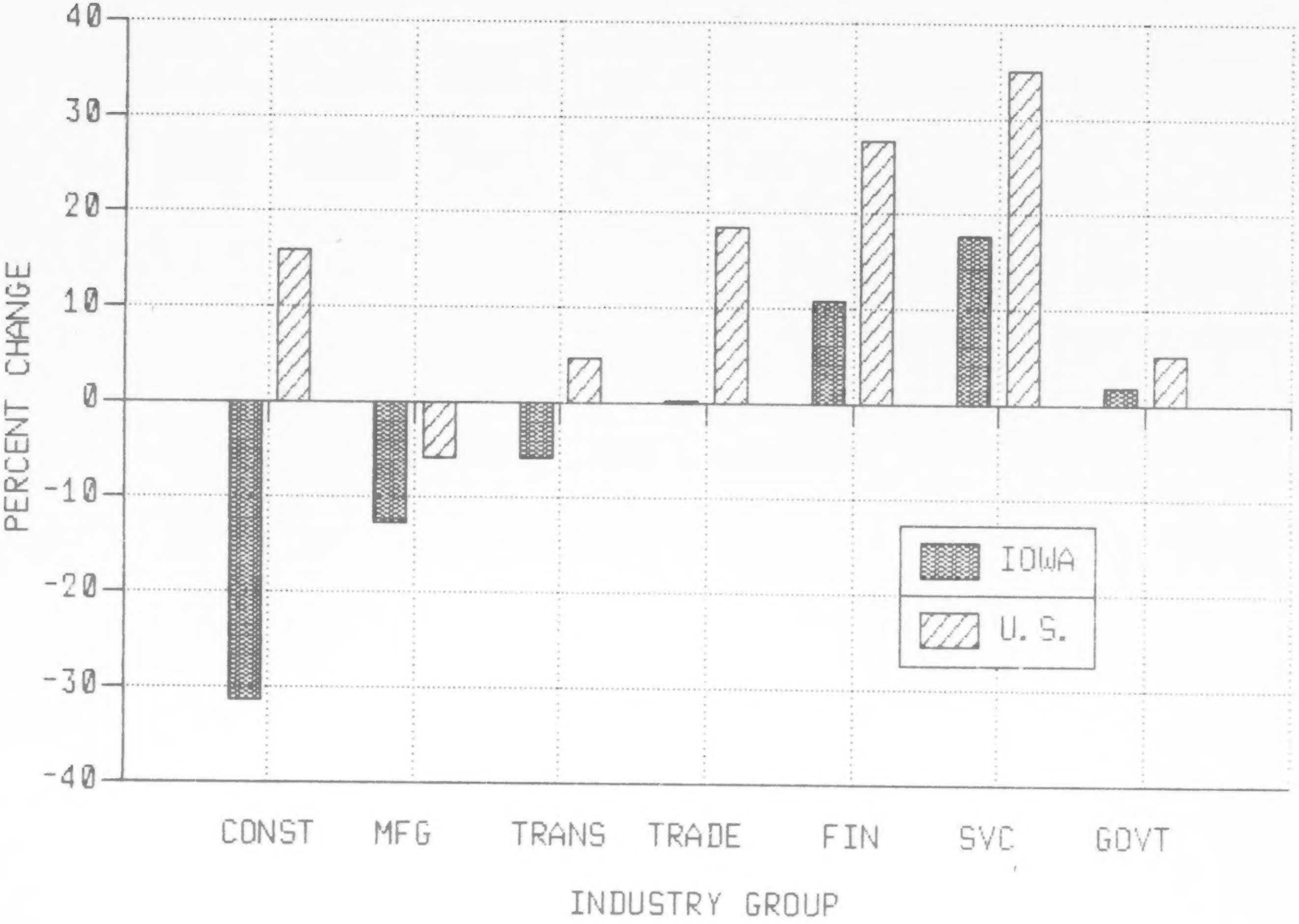
Services

Since 1980, Iowa nonagricultural wage and salary employment has declined in six out of eight years. However, in contrast, the service industries have added workers in each year of this decade, for a total gain of 37 thousand persons. Health services is the largest component of this industrial group. The health industry has been experiencing rapid changes. For example, there has been an increasing emphasis on out-patient care, as opposed to hospitalization. Health insurance carriers, in addition to government agencies and employers, have adopted policies which discourage hospital admissions. As a result of these cost containment measures, there has been a drop in occupancy rates. This has led to greater use of advertising and other marketing strategies by hospitals.

During 1987, business services added 1,800 employees. In Iowa, this industry primarily consists of management consulting and public relations, cleaning services, temporary help agencies, computer services, and direct mail advertising. Companies utilize management consultants because their advice is less expensive than the cost of a permanent employee. Nationally, traditional accounting firms, such as Arthur Andersen, Peat Marwick, and Arthur Young, have expanded into consulting services. As management requires expertise, the demand for consulting services will continue to grow.

Data processing services is one of the business services which has experienced limited growth during the past five years. This has been caused by the growing use of microcomputers by business. In order to increase their revenues, many data processing firms have expanded into electronic mail, software development, and other aspects of computer technology. Other firms have specialized in areas, such as health or insurance, in order to develop a reputation for expertise. Those companies which provide programming services have also expanded into training staff in the use of software. In the long term, demand for these services may decrease as software manufacturers improve their tutorials and secondary schools expand their computer courses.

CHANGE IN NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT
UNITED STATES AND IOWA
1980 - 1987



EMPLOYMENT OUTLOOK BY OCCUPATION

The two major components which are necessary for the development of occupational projections are the Occupational Employment Statistics (OES) program and acceptable employment projections by industry. The OES program is conducted as part of a cooperative agreement between the Iowa Department of Employment Services and the Bureau of Labor Statistics. Its main component is a survey which provides current estimates of industry staffing patterns. Questionnaires are distributed to a range of 3,000 to 11,000 Iowa employers, depending on the industries being studied. Industries are surveyed on a three year cycle as follows:

Year 1	Retail Trade, Regulated Industries, Education, State and Local Government
Year 2	Manufacturing and Hospitals
Year 3	Construction, Services, and Finance

Every organization with a minimum of 250 employees is included in the study. If an industry has fewer than 1,000 employees, all companies receive questionnaires. During the course of a three year cycle, an estimated 16,875 Iowa employers are studied.

Before the OES survey was developed, industry occupational employment could only be studied during the decennial census of population. The census had two major disadvantages. First, it could only be updated once in ten years. In addition, it relied on "self-identification". For example, an accountant who worked as a bookkeeper might still identify herself as an accountant. This gave a distorted picture of actual occupational employment. By utilizing an OES based occupational matrix rather than a census matrix, the Iowa Department of Employment Services has been able to double the number of occupations that were previously analyzed.

The second major data item required for occupational projections is acceptable industry projections on which to apply the OES industry-occupation matrix. These were developed in cooperation with the Department of Economic Development (DED). Iowa industry employment projections are based on the Data Resources Incorporated (DRI) Macro Model of the U.S. Economy. The DRI econometric model contains 300 variables. It includes items such as employment, personal income, and interest rates. It is a major input into the Iowa Econometric Forecasting Model, which is maintained by the Institute for Economic Research at the University of Iowa.

The Iowa Model combines both state and national historical data series which are updated as new information becomes available. It utilizes the export-base theory which divides the economy into two parts: Industries which produce goods and services for export outside of a region and those which primarily produce for the local economy. In Iowa, agriculture, farm machinery, and rubber products are examples of export industries, while restaurants and other retail establishments exemplify organizations which serve the local community. In the export-base model, changes in export activity effect income and employment in the local sector because workers spend the greater part of their earnings near their homes. Manufacturing and agriculture are the primary Iowa export industries. Changes in national commodity prices and levels of production will determine prices, production levels, and employment in Iowa.

The final component of the Iowa Forecasting Model consists of population estimates. Population levels are projected by the U.S. Bureau of the Census. Estimates of births and deaths are needed to project population. Employment is also an important factor because it is needed to estimate net migration.

Once employment projections are developed using the model, they are presented to the Iowa forecasting council. This group is brought together every six months by the Department of Economic Development. It consists of representatives of government agencies and major Iowa companies. Based on their knowledge of what is actually happening in Iowa (and particularly in their own industries), this group recommends changes in the industry projections which have been developed utilizing the Iowa Forecasting Model.

TABLE 4

IOWA OCCUPATIONAL EMPLOYMENT PROFILE
1987-1990

OCCUPATIONAL GROUP	EMP 1987	EMP 1989	EMP 1990	GROWTH 1989-1990	REPLACEMENT NEEDS 1989-1990	TOTAL OPENINGS 1989-1990
MANAGERIAL & ADMINISTRATIVE	74,263	74,414	74,137	-277	2,865	2,588
PROFESSIONAL & TECHNICAL	206,043	208,617	209,793	1,176	6,236	7,412
SALES WORKERS	120,231	120,231	119,839	-392	5,429	5,037
CLERICAL & ADMINISTRATIVE	190,194	192,374	192,314	-60	6,405	6,345
SERVICES	189,996	192,073	193,548	1,475	9,490	10,965
AGRICULTURE	9,617	9,608	9,519	-89	394	305
PRODUCTION, CONSTRUCTION, MAINTENANCE	292,032	287,570	284,248	-3,322	7,944	4,622
TOTAL	1,082,376	1,084,887	1,083,398	-1,489	38,763	37,274

SOURCE: Labor Market Information Unit, Department of Employment Services, in cooperation with the Department of Economic Development, and the Iowa State Occupational Information Coordinating Committee.

Between 1987 and 1990, an estimated 112 thousand workers will be needed to fill jobs which are expected to result from growth and replacement. For the purpose of occupational projections, replacement pertains to those positions which must be filled when workers leave the labor force as a result of death or retirement. It also applies to persons who withdraw for child rearing purposes, in addition to other personal reasons. The concept of replacement does not refer to turnover, which occurs when workers change jobs, often in the same occupation.

TABLE 5

OCCUPATIONS WITH THE GREATEST GROWTH POTENTIAL
STATE OF IOWA

TITLE	1987	1989	1990	REPLACEMENT NEEDS 1989 - 1990	GROWTH 1989 - 1990	TOTAL OPENINGS 1989 - 1990
NURSING AIDES, ORDERLIES, AND ATTENDANTS	19,982	20,928	21,558	938	630	1,568
REGISTERED NURSES	19,145	19,773	20,246	492	473	965
LICENSED PRACTICAL NURSES	7,522	7,822	8,038	190	216	406
PHYSICIANS AND SURGEONS	3,865	4,051	4,175	310	124	434
FOOD PREPARATION WORKERS	13,248	13,382	13,502	759	120	879
MAIDS AND HOUSEKEEPING CLEANERS	7,936	8,190	8,302	640	112	752
COOKS, INSTITUTION OR CAFETERIA	7,607	7,752	7,841	474	89	563
CHILD CARE WORKERS	2,645	2,726	2,805	76	79	155
RECEPTIONISTS AND INFORMATION CLERKS	6,650	6,842	6,917	301	75	376
DENTAL ASSISTANTS	1,802	1,909	1,975	38	66	104
MEDICAL SECRETARIES	1,659	1,746	1,803	48	57	105
MEDICAL ASSISTANTS	1,633	1,718	1,773	62	55	117
SOCIAL WORKERS, EXCEPT MEDICAL	3,342	3,412	3,462	87	50	137
HOUSEKEEPERS, INSTITUTIONAL	2,139	2,221	2,269	151	48	199
LAUNDRY AND DRYCLEANING MACHINE OPERATORS	1,974	2,048	2,094	171	46	217
INSURANCE SALES WORKERS	3,632	3,851	3,895	195	44	239
TEACHERS, PRESCHOOL AND KINDERGARTEN	2,770	2,817	2,860	38	43	81
ALL OTHER HEALTH SERVICE WORKERS	1,349	1,405	1,448	132	43	175
MEDICINE AND HEALTH SERVICE	1,427	1,483	1,525	57	42	99
INSURANCE POLICY PROCESSING CLERKS	2,620	2,774	2,812	98	38	136
ALL OTHER HEALTH PROFESSIONALS AND TECHNICIANS	2,574	2,641	2,677	49	36	85
DENTISTS	935	990	1,025	74	35	109
TYPISTS	6,197	6,303	6,337	165	34	199
LEGAL SECRETARIES	2,003	2,102	2,135	60	33	93
SLAUGHTERERS AND BUTCHERS	5,839	6,185	6,217	137	32	169
HOME HEALTH AIDES	1,262	1,304	1,335	80	31	111
TEACHER AIDES AND EDUCATIONAL ASSISTANTS	4,121	4,162	4,191	110	29	139
LAWYERS	2,456	2,547	2,575	188	28	216
WAITERS AND WAITRESSES	22,983	22,847	22,874	466	27	493

Managerial and Administrative Occupations

While the total number of managerial jobs is expected to drop between 1989 and 1990, there will be a need for nearly 2,600 workers. The greatest number of openings in this category will be for general managers and top executives. There should also be positions for financial managers, food service and lodging managers, education administrators, postmasters and mail supervisors, in addition to administrative services managers. The majority of these openings will result from the need to replace existing workers. Jobs in the managerial and administrative category are often filled by persons who are already employed by the same organization as the previous incumbent. Therefore, the hiring of new workers often occurs at lower levels of a firm.

Professional and Technical Occupations

Because of the anticipated expansion of the health services industry group, it is expected that a large number of job openings will develop for registered nurses, physicians and surgeons, and licensed practical nurses. These positions will result from both growth and the need to replace existing workers. In non-health related occupations, openings are expected for elementary teachers, secondary school teachers, accountants and auditors, lawyers, librarians, social workers, and recreation workers. The education openings are anticipated because of the increased emphasis that the state of Iowa is placing on improving its school systems.

Unlike managerial positions, professional and technical jobs are often filled by hiring workers from outside of an organization. This occurs because of the long training periods and licensing requirements which are characteristic of many of the occupations in this category. For example, a teacher aide is not normally promoted into a teaching position, unless he or she possesses the required training and certification.

Sales Workers

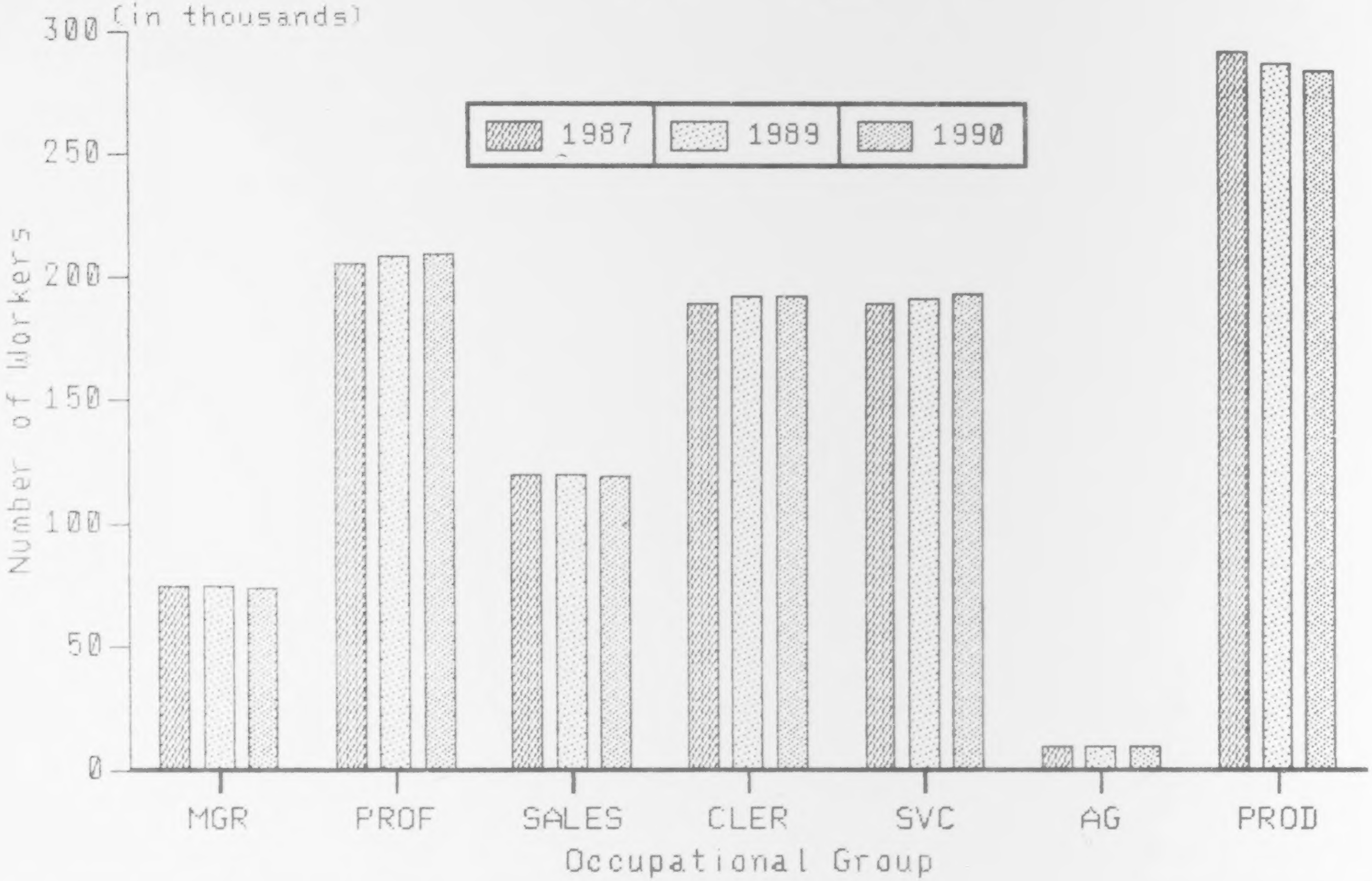
An estimated 5,000 sales workers will be needed to fill openings which are expected to occur between 1989 and 1990. Replacement needs should account for the majority of these positions. Within this category, the greatest number of openings will be for retail salespersons. It is important to note that these occupational projections do not divide part-time from full-time employment. Many of the anticipated retail sales openings will be for part-time workers and may not meet the needs of persons who desire full-time career opportunities.

In addition to retail salesperson, large numbers of jobs are expected for stock clerks, cashiers, retail sales supervisors, and parts salesperson. In non-retail firms, openings should occur for insurance sales workers and scientific sales representatives.

FASTEST GROWING OCCUPATIONS
STATE OF IOWA

TITLE	1987	1989	1990	GROWTH 1989 - 1990	REPLACEMENT NEEDS 1989 - 1990	PERCENT GROWTH 1989 - 1990
DENTAL ASSISTANTS	1,802	1,909	1,975	66	38	3.5
DENTISTS	935	990	1,025	35	74	3.5
MEDICAL SECRETARIES	1,659	1,746	1,803	57	48	3.3
MEDICAL ASSISTANTS	1,633	1,718	1,773	55	62	3.2
PHYSICIANS AND SURGEONS	3,865	4,051	4,175	124	310	3.1
ALL OTHER HEALTH SERVICE WORKERS	1,349	1,405	1,448	43	132	3.1
NURSING AIDES, ORDERLIES, AND ATTENDANTS	19,982	20,928	21,558	630	938	3.0
CHILD CARE WORKERS	2,645	2,726	2,805	79	76	2.9
LICENSED PRACTICAL NURSES	7,522	7,822	8,038	216	190	2.8
MEDICINE AND HEALTH SERVICE	1,427	1,483	1,525	42	57	2.8
REGISTERED NURSES	19,145	19,773	20,246	473	492	2.4
HOME HEALTH AIDES	1,262	1,304	1,335	31	80	2.4
HOUSEKEEPERS, INSTITUTIONAL	2,139	2,221	2,269	48	151	2.2
LAUNDRY AND DRYCLEANING MACHINE OPERATORS	1,974	2,048	2,094	46	171	2.2
LEGAL SECRETARIES	2,003	2,102	2,135	33	60	1.6
SOCIAL WORKERS, EXCEPT MEDICAL	3,342	3,412	3,462	50	87	1.5
TEACHERS, PRESCHOOL AND KINDERGARTEN	2,770	2,817	2,860	43	38	1.5
MAIDS AND HOUSEKEEPING CLEANERS	7,936	8,190	8,302	112	640	1.4
INSURANCE POLICY PROCESSING CLERKS	2,620	2,774	2,812	38	98	1.4
ALL OTHER HEALTH PROFESSIONALS AND TECHNICIANS	2,574	2,641	2,677	36	49	1.4
COOKS, INSTITUTION OR CAFETERIA	7,607	7,752	7,841	89	474	1.1
RECEPTIONISTS AND INFORMATION CLERKS	6,650	6,842	6,917	75	301	1.1
INSURANCE SALES WORKERS	3,632	3,851	3,895	44	195	1.1
LAWYERS	2,456	2,547	2,575	28	188	1.1
FOOD PREPARATION WORKERS	13,248	13,382	13,502	120	759	0.9
TEACHER AIDES AND EDUCATIONAL ASSISTANTS	4,121	4,162	4,191	29	110	0.7
TYPISTS	6,197	6,303	6,337	34	165	0.5
SLAUGHTERERS AND BUTCHERS	5,839	6,185	6,217	32	137	0.5
WAITERS AND WAITRESSES	22,983	22,847	22,874	27	466	0.1

IOWA OCCUPATIONAL EMPLOYMENT PROFILE
(BY MAJOR OCCUPATIONAL GROUP)
1987 - 1990



SOURCE: LABOR MARKET INFORMATION UNIT, DEPARTMENT OF EMPLOYMENT SERVICES

TABLE 7

OCCUPATIONS WITH THE GREATEST NUMBER OF PROJECTED OPENINGS
STATE OF IOWA

TITLE	1987	1989	1990	REPLACEMENT NEEDS 1989 - 1990	GROWTH 1989 - 1990	TOTAL OPENINGS 1989 - 1990
SALESPERSONS, RETAIL	35,592	35,530	35,409	2,025	-121	1,904
JANITORS AND CLEANERS	21,013	21,228	21,221	1,785	-7	1,778
NURSING AIDES, ORDERLIES, AND ATTENDANTS	19,982	20,928	21,558	938	630	1,568
GENERAL MANAGERS AND TOP EXECUTIVES	31,387	31,472	31,277	1,293	-195	1,098
BOOKKEEPING, ACCOUNTING, AND AUDITING CLERKS	22,867	23,011	22,914	1,116	-97	1,019
GENERAL OFFICE CLERKS	22,785	22,963	22,931	1,029	-32	997
REGISTERED NURSES	19,145	19,773	20,246	492	473	965
FOOD PREPARATION WORKERS	13,248	13,382	13,502	759	120	879
STOCK CLERKS, SALES FLOOR	15,372	15,343	15,321	824	-22	802
ALL OTHER SECRETARIES	29,333	29,512	29,487	794	-25	769
MAIDS AND HOUSEKEEPING CLEANERS	7,936	8,190	8,302	640	112	752
CASHIERS	26,505	26,419	26,419	668	0	668
COOKS, INSTITUTION OR CAFETERIA	7,607	7,752	7,841	474	89	563
WAITERS AND WAITRESSES	22,983	22,847	22,874	466	27	493
COOKS, SPECIALTY FAST FOOD	7,084	7,019	7,028	436	9	445
GUARDS	4,219	4,302	4,324	417	22	439
PHYSICIANS AND SURGEONS	3,865	4,051	4,175	310	124	434
FOOD PREPARATION AND SERVICE WORKERS	10,003	9,920	9,932	410	12	422
TEACHERS, ELEMENTARY	14,659	14,683	14,659	435	-24	411
LICENSED PRACTICAL NURSES	7,522	7,822	8,038	190	216	406
RECEPTIONISTS AND INFORMATION CLERKS	6,650	6,842	6,917	301	75	376
BARTENDERS	7,878	7,841	7,839	362	-2	360
COOKS, RESTAURANT	5,755	5,720	5,725	352	5	357
OTHER SALES REPRESENTATIVES	10,497	10,405	10,265	451	-140	311
FIRST LINE SUPERVISORS-SALES AND RELATED	7,301	7,297	7,231	366	-66	300
TEACHERS, SECONDARY SCHOOL	16,057	16,084	16,058	322	-26	296
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS	9,088	9,163	9,157	300	-6	294
BUS DRIVERS, SCHOOL	5,213	5,222	5,221	284	-1	283
MAINTENANCE REPAIRERS, GENERAL UTILITY	11,841	11,885	11,799	366	-86	280
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	19,192	19,008	18,673	608	-335	273
ALL OTHER MANAGERS AND ADMINISTRATORS	6,757	6,787	6,770	276	-17	259
ALL OTHER SERVICE SUPERVISORS	4,156	4,186	4,206	239	20	259
FINANCIAL MANAGERS	8,588	8,692	8,668	281	-24	257
TEACHERS AND INSTRUCTORS, VOCATIONAL	4,625	4,660	4,671	244	11	255

Clerical and Administrative Occupations

Clerical workers are employed in all industries. The demand for persons who are qualified for these occupations has been contracting as a result of reduced employment levels in manufacturing and construction, in addition to other industries. However, similarly to other occupational groups, there will be a need for clerical workers who are trained to replace those who leave the labor force. Between 1989 and 1990, the greatest number of openings will be for bookkeeping and accounting clerks, general office clerks, receptionists, clerical supervisors, typists, stock clerks, tellers, and insurance policy clerks. Jobs will also become available for teacher aides and educational assistants, and postal mail carriers, in addition to shipping and receiving clerks.

Service Workers

The service occupations are expected to account for nearly 11,000 total openings between 1989 and 1990, making this the group with the largest number of potential jobs. Within this category, janitors and cleaners will account for the greatest number of openings, mostly for replacement workers. There will also be positions available for nurse aide/orderlies, food preparation workers, cooks, guards, bartenders, waiter/waitresses, and cosmetologists, in addition to child care workers, medical assistants, and home health aides. Nurse aide/orderly is also the occupation with the largest projected employment growth.

Production, Construction, Operating, Maintenance, and Material Handling Occupations

An estimated twenty-seven percent of those persons who work in Iowa are employed in the production/construction occupations. The number of jobs in this category have been decreasing as a result of declining employment in the manufacturing and construction industries. As with other occupational groups, replacement needs are expected to provide the majority of openings. However, plant closings in durable goods manufacturing are expected to cause a net decrease in the number of production related jobs.

Between 1989 and 1990, it is expected that the largest number of jobs in this occupational category will be for truck drivers. Other occupations with anticipated vacancies are school bus drivers, maintenance repairers, slaughterers/butchers, laundry and drycleaning machine operators, highway maintenance workers and automotive mechanics.

In some categories, the number of replacement openings may not be sufficient to counter-balance the decrease in total employment. Grinding and polishing workers, packaging and filling machine operators, and railroad brake, signal, and switch operators are examples of occupations which are expected to experience a net decrease in total openings.

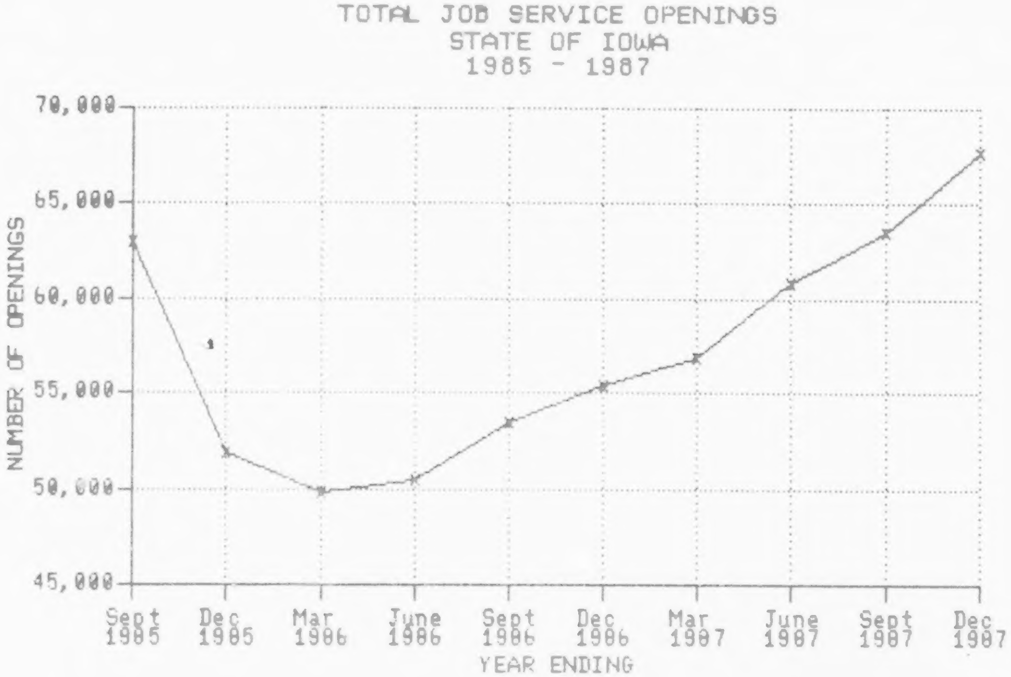
OCCUPATIONS WITH DECLINING EMPLOYMENT
STATE OF IOWA

TITLE	1987	1989	1990	REPLACEMENT NEEDS 1989 - 1990	EMPLOYMENT DECLINE 1989 - 1990	PERCENT CHANGE 1989 - 1990
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	19,192	19,008	18,673	608	-335	-1.7
ALL OTHER HELPERS, LABORERS, AND MATERIAL MOVER	17,135	16,921	16,640	426	-281	-1.6
GENERAL MANAGERS AND TOP EXECUTIVES	31,387	31,472	31,277	1,293	-195	-0.6
ALL OTHER FREIGHT, STOCK, AND MATERIAL MOVERS	8,660	8,576	8,434	139	-142	-1.6
OTHER SALES REPRESENTATIVES	10,497	10,405	10,265	451	-140	-1.3
FIRST LINE SUPERVISORS, PRODUCTION	7,390	7,287	7,155	192	-132	-1.8
SALESPERSONS, RETAIL	35,592	35,530	35,409	2,025	-121	-0.3
ALL OTHER ASSEMBLERS AND FABRICATORS	11,128	10,880	10,768	215	-112	-1.0
PACKAGING AND FILLING MACHINE OPERATORS AND TENDERS	4,692	4,561	4,462	81	-99	-2.1
BOOKKEEPING, ACCOUNTING, AND AUDITING CLERKS	22,867	23,011	22,914	1,116	-97	-0.4
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	5,654	5,568	5,473	99	-95	-1.6
MAINTENANCE REPAIRERS, GENERAL UTILITY	11,841	11,885	11,799	366	-86	-0.7
TRUCK DRIVERS-LIGHT,DELIVERY AND ROUTE WORKERS	7,763	7,760	7,675	284	-85	-1.0
ELECTRICIANS	4,370	4,079	3,998	109	-81	-1.9
TELLERS	6,576	6,745	6,665	152	-80	-1.1
CARPENTERS	5,415	4,964	4,885	200	-79	-1.5
FIRST LINE SUPERVISORS-SALES AND RELATED OCCUPATIONS	7,301	7,297	7,231	366	-66	-0.8
SEWING MACHINE OPERATORS, GARMENT	2,035	2,028	1,962	107	-66	-3.2
ALL OTHER AG.,FORESTRY,FISHING,RELATED WORKERS	3,446	3,389	3,325	84	-64	-1.8
PRODUCTION INSPECTORS, TESTERS, GRADERS	3,708	3,652	3,592	108	-60	-1.6
SALES REPRESENTATIVES,SCIENTIFIC	4,066	4,006	3,946	173	-60	-1.4
HAND PACKERS AND PACKAGERS	4,410	4,386	4,326	109	-60	-1.3
CRUSHING AND MIXING MACHINE OPERATORS AND TENDERS	1,781	1,719	1,660	46	-59	-3.4
MACHINE TOOL CUTTIN OPERATORS AND TENDERS	3,201	3,079	3,025	60	-54	-1.7
MACHINE FEEDERS AND OFFBEARERS	2,397	2,408	2,359	43	-49	-2.0
MACHINE FORMING OPERATORS AND TENDERS	2,623	2,558	2,512	41	-46	-1.7
ALL OTHER MACHINE OPERATORS AND TENDERS	2,098	2,061	2,022	44	-39	-1.8
DRIVER/SALES WORKERS	2,131	2,079	2,040	50	-39	-1.8
FIRST LINE SUPERVISORS, CONSTRUCTION	2,428	2,250	2,211	77	-39	-1.7
SHEET METAL WORKERS	1,748	1,626	1,588	33	-38	-2.3
INDUSTRIAL MACHINERY MECHANICS	2,018	1,981	1,945	46	-36	-1.8
STOCK CLERKS, STOCKROOOM, WAREHOUSE	6,631	6,610	6,575	215	-35	-0.5
MACHINISTS	2,970	2,931	2,897	56	-34	-1.1
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	2,362	2,179	2,145	66	-34	-1.5

LABOR SUPPLY AND DEMAND

Job Openings and Applicants

During 1987, the Job Service Division of the Department of Employment Services received 67,587 openings. The number of positions listed with the Division has recorded increases for seven consecutive calendar quarters. The climbing number of listed jobs parallels the direction of Iowa non-agricultural wage and salary employment, which also grew during the past year.



Between the twelve months which ended in December 1986 and the year which terminated in December 1987, there was a gain of 12,235 permanent openings listed with the Job Service Division. Business services accounted for the greatest increase in the number of jobs which were listed with the Department. In Iowa, this segment of the service industries consists of cleaning services, temporary help agencies (private), and management consultants, in addition to computer and data processing services. Other industries which recorded large increases in the number of jobs, listed during the past year were eating and drinking places (restaurants), food and kindred products, transportation equipment, wholesale trade (nondurable goods), and nonelectrical machinery manufacturing.

While most industry groups recorded an increased number of openings during 1987, some recorded fewer job openings than were listed in the previous twelve months. Of these, the largest decreases occurred in food stores, amusement and recreation, general merchandise (department stores) and educational services.

TABLE 9

OCCUPATIONS WITH THE GREATEST NUMBER OF OPENINGS
JANUARY THROUGH DECEMBER 1987
STATE OF IOWA

DOT CODE	TITLE	APPLICANTS	OPENINGS	APPLICANT/ OPENING RATIO
311.477-030	WAITER/WAITRESS	4,841	2,789	1.7
529.687-130	LABORER, SLAUGHTERING & MEAT PACKING	4,147	2,741	1.5
290.477-014	SALES CLERK	7,896	2,086	3.8
299.357-014	TELEPHONE SOLICITOR	1,461	2,015	0.7
929.687-030	MATERIAL HANDLER	10,165	1,677	6.1
313.361-014	COOK	2,320	1,327	1.8
211.462-014	CASHIER-CHECKER	4,340	1,302	3.3
706.687-010	ASSEMBLER, PRODUCTION	10,308	1,294	8.0
219.362-010	ADMINISTRATIVE CLERK	4,157	1,286	3.2
382.664-010	JANITOR	3,352	1,232	2.7
209.562-010	CLERK, GENERAL	8,227	1,219	6.8
318.687-010	KITCHEN HELPER	2,922	1,148	2.5
355.674-014	NURSE AIDE	3,241	977	3.3
869.664-014	CONSTRUCTION WORKER	7,573	975	7.8
904.383-010	TRACTOR-TRAILER-TRUCK DRIVER	3,285	949	3.5
922.687-058	LABORER, STORES	4,120	806	5.1
201.362-030	SECRETARY	4,047	795	5.1
381.687-014	CLEANER, COMMERCIAL OR INSTITUTIONAL	2,038	761	2.7
237.367-038	RECEPTIONIST	2,515	666	3.8
311.472-010	FAST-FOODS WORKER	598	639	0.9
301.677-010	CHILD MONITOR	1,801	580	3.1
609.684-014	LABORER, GENERAL	1,481	567	2.6
609.685-018	PRODUCTION-MACHINE TENDER	2,833	557	5.1
211.462-010	CASHIER 2	1,635	519	3.1
312.474-010	BARTENDER	1,191	506	2.3
210.382-014	BOOKKEEPER	2,901	492	5.9
323.687-014	CLEANER, HOUSEKEEPING	1,342	490	2.7
905.663-014	TRUCK DRIVER, HEAVY	3,046	445	6.8
763.684-078	WICKER WORKER	53	441	0.1
311.477-014	COUNTER ATTENDANT, LUNCHROOM OR COFFEE SHOP	557	439	1.3
620.261-010	AUTOMOBILE MECHANIC	2,495	426	5.9
525.684-010	BONER, MEAT	1,003	417	2.4
299.477-010	DELIVERER, MERCHANDISE	531	401	1.3
616.360-018	MACHINE OPERATOR 1	1,347	359	3.8
372.667-034	GUARD, SECURITY	1,290	359	3.6
787.682-046	SEWING-MACHINE OPERATOR	486	357	1.4
203.362-010	CLERK-TYPIST	1,324	351	3.8
216.482-010	ACCOUNTING CLERK	1,557	341	4.6
299.367-014	STOCK CLERK, SELF-SERVICE STORE	925	333	2.8
860.381-022	CARPENTER	1,843	330	5.6
559.686-026	LABORER, GENERAL	78	313	0.3
309.677-010	COMPANION	622	308	2.0
211.362-018	TELLER	576	300	1.9
203.582-030	KEYPUNCH OPERATOR	559	300	1.9
211.362-010	CASHIER 1	1,638	294	5.6

SOURCE: LABOR MARKET INFORMATION UNIT, DEPARTMENT OF EMPLOYMENT SERVICES

Professional, technical, and managerial occupations accounted for nearly 4,000 positions during the year. Licensed practical nurse (LPN) was the professional occupation with the greatest number of openings. Jobs for LPN's were listed in several offices throughout the state, with a large number concentrated in South Central Iowa. While hospitals are replacing licensed practical nurses with registered nurses, there appears to be a need for LPN's in nursing homes. Other professional jobs with large numbers of openings were registered nurse, retail store manager, management trainee, accountant, and dental assistant. Management trainee and retail store manager also accounted for a large number of Job Service applicants. In addition to these occupations, large numbers of persons were classified as office managers, administrative assistants, accountants, electronic technicians and business programmers.

During 1987, clerical occupations comprised the second largest occupational group. Within this category, cashier-checker provided the greatest number of employment opportunities. The majority of cashier openings were listed by food stores, automotive dealers, and general merchandise (department) stores. Other clerical occupations with numerous employment opportunities were administrative clerk, general clerk, secretary, receptionist, teller, and bookkeeper. Iowa manufacturers of fabricated metal products accounted for a third of the administrative clerk openings which were listed with the Department of Employment Services. Business services and government also provided job opportunities for administrative clerks.

TABLE 10

LABOR SUPPLY AND DEMAND BY OCCUPATIONAL GROUP
YEAR ENDING DECEMBER 31, 1987

Group	Applicants	Openings	Supply/Demand Ratio
TOTAL	**235,494**	**67,587**	**3.48**
Professional, Technical & Managerial	23,325	3,951	5.90
Clerical	44,554	11,664	3.82
Sales	17,903	7,489	2.39
Services	40,059	17,108	2.34
Agricultural	8,792	1,307	6.73
Processing	11,073	6,148	1.80
Machine Trades	17,334	4,533	3.82
Bench Work	18,859	4,508	4.18
Structural Work	25,095	4,585	5.47
Miscellaneous	28,500	6,294	3.48

SOURCE: Labor Market Information Unit, Department Employment Services.

During the year being discussed, there were nearly 7,500 jobs in the sales category listed with the Department of Employment Services. Sales clerk, telephone solicitor, merchandise deliverer, and stock clerk (self-service store) provided the greatest number of positions. Department stores hired nearly half of all sales clerks during 1987. However, building materials, apparel stores, and miscellaneous retail establishments also listed large numbers of these openings. Business services accounted for 85 percent of the openings that the Job Service Division received for telephone solicitors. However, jobs in this occupational category could be found in a minimum of 29 industries.

In 1987, services comprised the largest occupational category. Eating and drinking places accounted for 37 percent of service openings. Therefore, within this classification, waiter-waitress and cook were the occupations with the greatest number of jobs. Waiter-waitress was also the largest job classification among all employment categories. During the past year, there was also a need for kitchen helpers, nurse aides, cleaners, fast-foods workers, child monitors, bartenders, and security guards. It is important to note that not all food service workers are employed by restaurants. They may also be found in hospitals, nursing homes, and department stores, in addition to amusement and recreation. Similarly, while the majority of nurse aides are employed in the health service industries, the Job Service Division also received openings from social service agencies (both public and private) and private households.

In excess of 67 percent of processing jobs which the Department received occurred in the food and kindred products industry. In addition, many beginning factory jobs are classified into a general labor category which is listed under processing. However, laborer, slaughtering and meat packing continues to be the largest processing occupation in terms of openings. Similarly, there was also a need for meat boners. Processing occupations in the meat packing industry tend to be high turnover jobs with a large number of recurring positions. This happens because of the great physical exertion which is often required. Also, working conditions in slaughtering plants tend to be wet and cold.

Machine trades occupations have recorded an increasing number of openings for seven consecutive calendar quarters. Both electrical and nonelectrical machinery manufacturing, in addition to transportation equipment, accounted for this growth in the number of listed jobs. During the past year, general laborer, production machine tender, automobile mechanic, and machine operator accounted for in excess of 40 percent of job openings in the machine trades category. The majority of jobs for automobile mechanics occurred in automobile dealers and service stations, in addition to repair shops; a few positions were also listed by department stores, many of which offer automobile repair services.

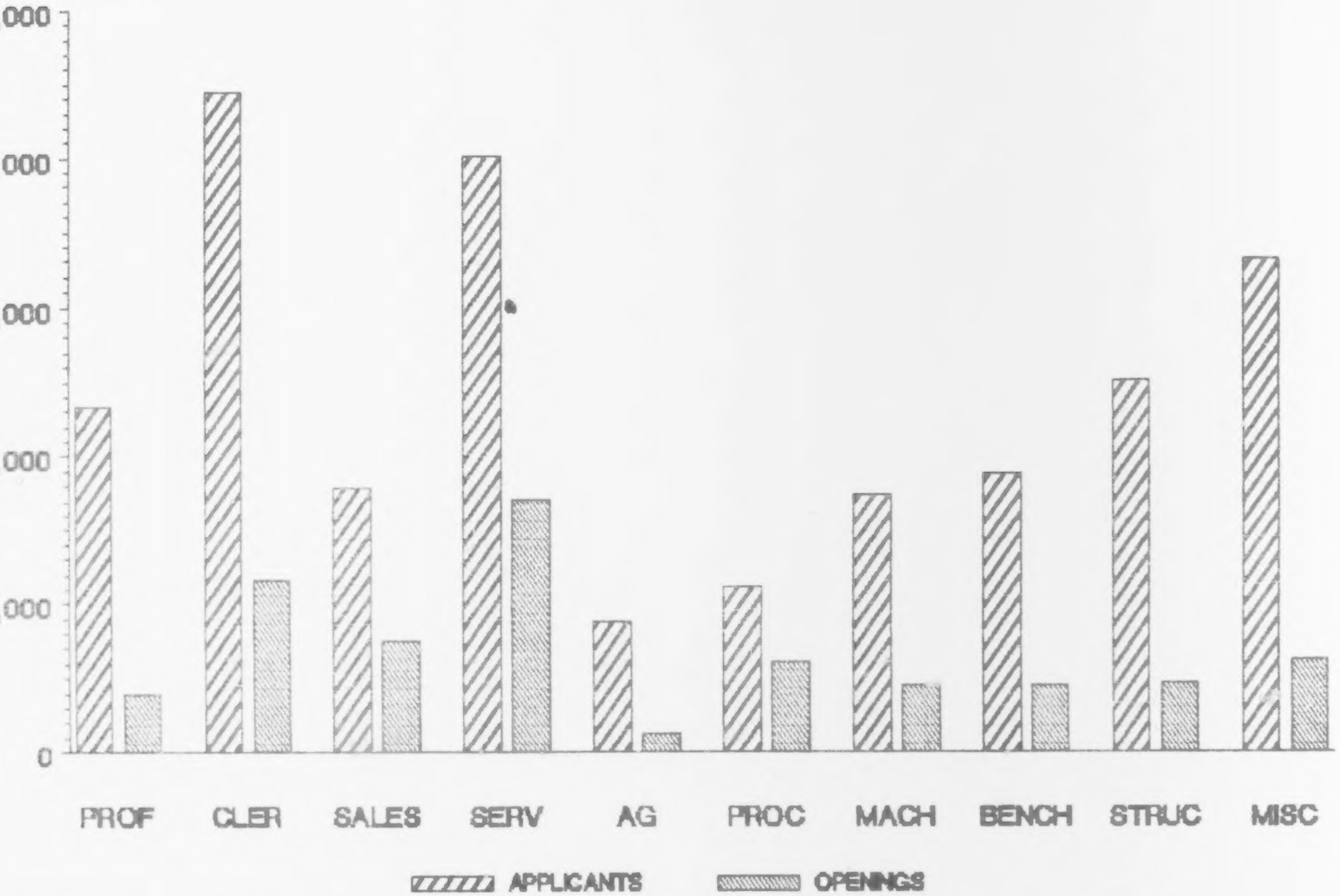
TABLE 11

OCCUPATIONS WITH THE GREATEST NUMBER OF APPLICANTS
JANUARY THROUGH DECEMBER 1987
STATE OF IOWA

DOT CODE	TITLE	APPLICANTS	OPENINGS	APPLICANT/ OPENING RATIO
706.687-010	ASSEMBLER, PRODUCTION	10,308	1,294	8.0
929.687-030	MATERIAL HANDLER	10,165	1,677	6.1
209.562-010	CLERK, GENERAL	8,227	1,219	6.8
290.477-014	SALES CLERK	7,896	2,086	3.8
869.664-014	CONSTRUCTION WORKER	7,573	975	7.8
311.477-030	WAITER/WAITRESS	4,841	2,789	1.7
211.462-014	CASHIER-CHECKER	4,340	1,302	3.3
401.687-010	FARMWORKER, GRAIN	4,201	240	17.5
219.362-010	ADMINISTRATIVE CLERK	4,157	1,286	3.2
529.687-130	LABORER, SLAUGHTERING & MEAT PACKING	4,147	2,741	1.5
922.687-058	LABORER, STORES	4,120	806	5.1
201.362-030	SECRETARY	4,047	795	5.1
382.664-010	JANITOR	3,352	1,232	2.7
904.383-010	TRACTOR-TRAILER-TRUCK DRIVER	3,285	949	3.5
355.674-014	NURSE AIDE	3,241	977	3.3
905.663-014	TRUCK DRIVER, HEAVY	3,046	445	6.8
318.687-010	KITCHEN HELPER	2,922	1,148	2.5
210.382-014	BOOKKEEPER	2,901	492	5.9
609.685-018	PRODUCTION-MACHINE TENDER	2,833	557	5.1
237.367-038	RECEPTIONIST	2,515	666	3.8
620.261-010	AUTOMOBILE MECHANIC	2,495	426	5.9
313.361-014	COOK	2,320	1,327	1.8
705.687-014	LABORER, GRINDING AND POLISHING	2,122	104	20.4
189.167-018	MANAGEMENT TRAINEE	2,046	215	9.5
381.687-014	CLEANER, COMMERCIAL OR INSTITUTIONAL	2,038	761	2.7
279.357-014	SALES REPRESENTATIVE, GENERAL MERCHANDISE	1,966	247	8.0
860.381-022	CARPENTER	1,843	330	5.6
301.677-010	CHILD MONITOR	1,801	580	3.1
899.381-010	MAINTENANCE REPAIRER, BUILDING	1,728	262	6.6
211.362-010	CASHIER 1	1,638	294	5.6
211.462-010	CASHIER 2	1,635	519	3.1
185.167-046	MANAGER, RETAIL STORE	1,628	137	11.9
216.482-010	ACCOUNTING CLERK	1,557	341	4.6
921.683-050	INDUSTRIAL-TRUCK OPERATOR	1,507	70	21.5
609.684-014	LABORER, GENERAL	1,481	567	2.6
299.357-014	TELEPHONE SOLICITOR	1,461	2,015	0.7
616.360-018	MACHINE OPERATOR 1	1,347	359	3.8
323.687-014	CLEANER, HOUSEKEEPING	1,342	490	2.7
203.362-010	CLERK-TYPIST	1,324	351	3.8
372.667-034	GUARD, SECURITY	1,290	359	3.6
312.474-010	BARTENDER	1,191	506	2.3
509.686-010	LABORER, GENERAL	1,128	120	9.4
906.683-022	TRUCK DRIVER, LIGHT	1,125	279	4.0
600.280-022	MACHINIST	1,106	239	4.6
810.384-014	WELDER, ARC	1,087	125	8.7

SOURCE: LABOR MARKET INFORMATION UNIT, DEPARTMENT OF EMPLOYMENT SERVICES

OPENINGS AND APPLICANTS BY OCCUPATIONAL GROUP
JANUARY THROUGH DECEMBER 1987
STATE OF IOWA



SOURCE: LABOR MARKET INFORMATION UNIT, IOWA DEPARTMENT OF EMPLOYMENT SERVICES.

Production assembler was the benchwork occupation with the greatest number of openings during the past year. Occupations in this group have continued to be effected by the decline in the number of Iowa manufacturing jobs. While nearly 1,300 openings for production assembler were listed with the Iowa Department of Employment Services, there were in excess of 10,000 applicants who were classified in this job category. Other benchwork occupations with large numbers of openings were electronics assembler and sewing machine operator. In southeast Iowa, there were also openings for wicker workers and explosive operators. Most of the jobs in these categories were filled by workers with training and experience in other occupations.

In structural occupations, the job category with the largest number of openings during the past year was construction worker. This job accounted for nearly 1,000 Job Service openings. At the same time, there were 7,600 applicants competing for these positions. Between 1980 and 1987, the construction industries lost 15,900 jobs. However, several thousand Iowa workers still hope to find employment in this industry. Other structural occupations with large numbers of openings were automobile body repairer, camper assembler, arc welder, production welder, carpenter, roofer, and building maintenance repairer, in addition to electrician.

Material handler accounted for 1,700 job openings during the period being discussed. The total number of jobs in this classification was actually much higher. However, the majority of Job Service orders for material handlers are of very short duration. For this reason, they are not tabulated for this discussion of occupational demand. Other occupations in the miscellaneous category with great numbers of openings were laborer (stores), tractor-trailer truck driver, hand packager, heavy-truck driver, and light-truck driver. In addition to motor freight transportation, truck drivers were hired by companies engaged in wholesale trade, construction, and the sale of building materials.

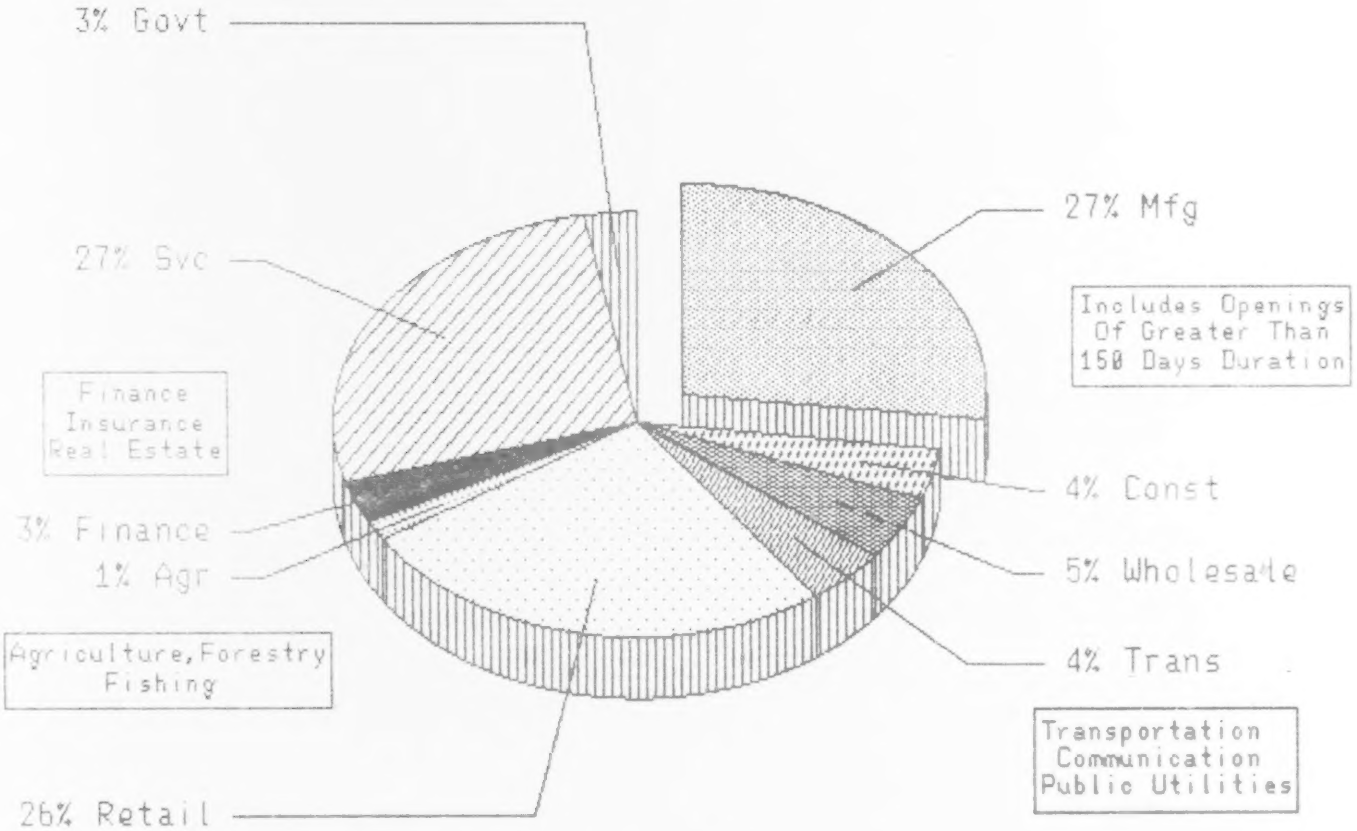
Technical Notes

The data presented in this section are generated by Job Service placement activities throughout the state. Labor supply data represents those persons who were registered in their search for work during calendar year 1987. Labor demand data refer to job openings listed with Job Service by employers during the same period.

Only job openings with an expected duration in excess of 150 days have been tabulated for this report. This has the effect of eliminating all temporary jobs from consideration. Farmworker, grain (corn detasseler) and material handler are the most salient examples of occupations with a majority of short-term openings. Other occupations which also employ large numbers of temporary workers are sales clerk, child monitor (babysitter), telephone solicitor, general clerk, and demonstrator.

Information compiled for this analysis is derived from the Enhanced National Data System (ENDS). Occupations are classified according to the Dictionary of Occupational Titles, Fourth Edition 1977. Dictionary of Occupational Titles (DOT) codes consist of nine digits.

JOB OPENINGS BY INDUSTRIAL CATEGORY
YEAR ENDING DECEMBER 31, 1987
STATE OF IOWA



67,968 OPENINGS

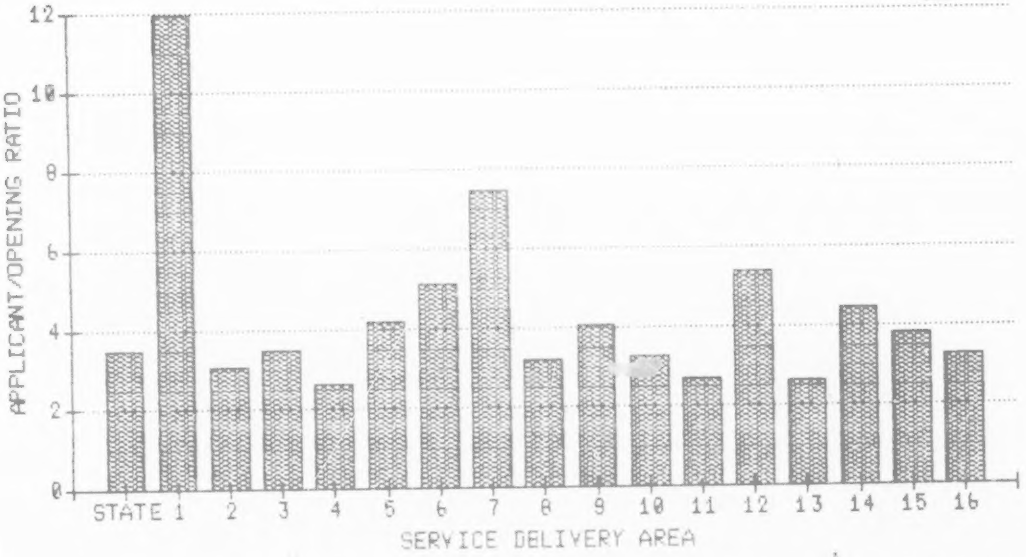
SOURCE: LABOR MARKET INFORMATION UNIT, DEPARTMENT OF EMPLOYMENT SERVICES.

Major DOT categories (identified by the integer furthest to the left) are as follows:

0,1	Professional, technical, and managerial occupations
2	Clerical and sales occupations
3	Service occupations
4	Agricultural, fishery, forestry, and related occupations
5	Processing occupations
6	Machine Trades occupations
7	Bench work occupations
8	Structural work occupations
9	Miscellaneous occupations

Service occupations include domestic services (e.g. maids), personal services (e.g. cosmetologists) and protective services (e.g. security guards), in addition to building and related services (e.g. janitors). Processing occupations consist of work in foundries, food processing plants, chemicals, and other manufacturing establishments. Examples include foundry workers, chemical operators, laborers in the meat packing industry, and bakers. Machine trades consist of occupations which require feeding, tending, operating, or repairing machinery. Bench work contains occupations such as production assembler, and sewing machine operator, in addition to radio and television repairer. Structural occupations are concerned with metal fabricating, welding, construction, excavating, and building maintenance. The miscellaneous category contains motor freight occupations, packaging, mining, and material handling.

APPLICANT/OPENING RATIOS
(BY SERVICE DELIVERY AREA)
JANUARY THROUGH DECEMBER 1987

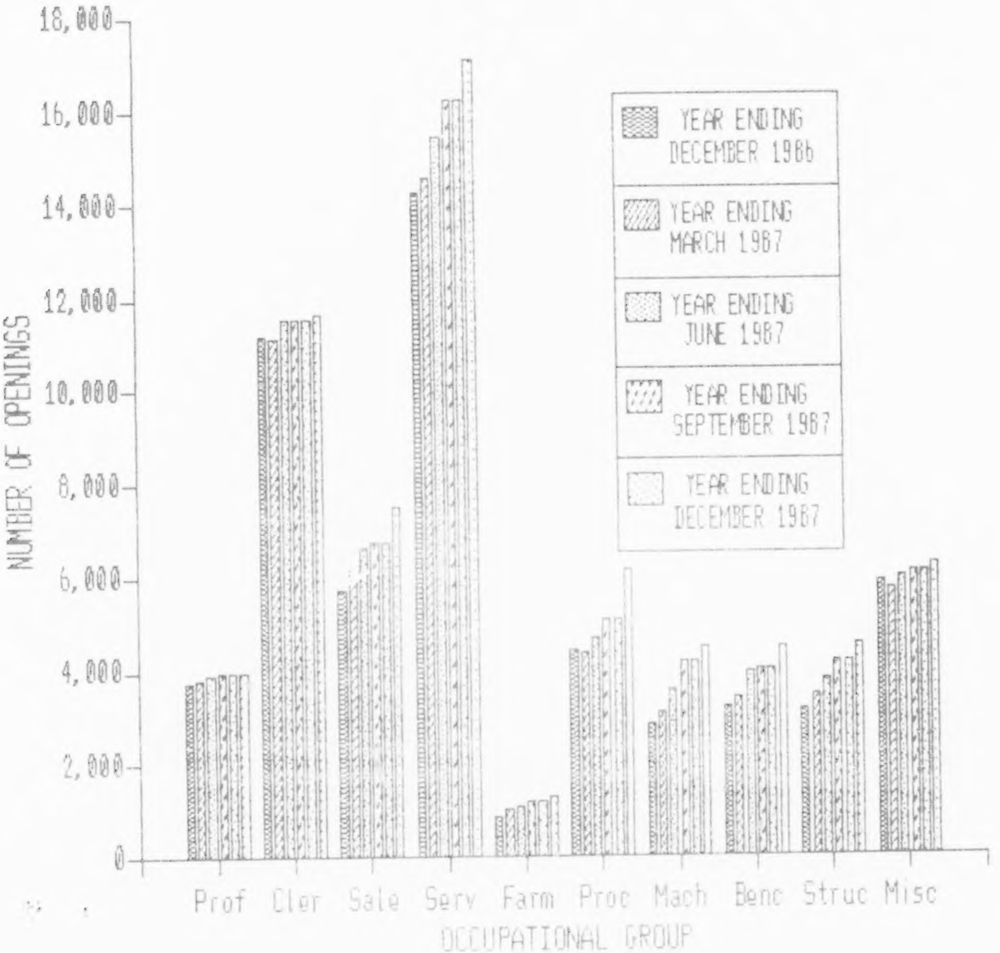


SOURCE: LABOR MARKET INFORMATION UNIT, DEPARTMENT OF EMPLOYMENT SERVICES

Applicants and job openings have been counted if they were listed at any time during the twelve month period. It is not unusual for individuals to be placed, find jobs, or drop out of the labor force during the year. Therefore, this information can best be used to analyze the flow of activity, rather than conditions at any one point in time.

A number of applicants are qualified in more than one occupation. These are assigned secondary occupational codes in order to alert placement specialists to their other training and experience. These secondary DOT codes are not tabulated in this report.

JOB SERVICE OPENINGS BY OCCUPATIONAL GROUP
YEAR ENDING DECEMBER 1986 THROUGH YEAR ENDING DECEMBER 1987
STATE OF IOWA



CHARACTERISTICS OF JOB SERVICE APPLICANTS

During 1987, 294,586 persons registered with the offices of the Job Service Division of the Department of Employment Services. The demographic composition of the applicant pool paralleled the makeup of the total population (universe) of unemployed Iowans. The only characteristic in which the percentage of applicants is significantly different from the 1989 unemployment projection is sex, where the Department appears to serve a higher proportion of females.

AGE: The Department of Employment Services registers a large number of applicants younger than the age of twenty. During 1987, this included nearly 2,500 persons who were too young to be included in the official labor force estimates. To be included in the resident civilian labor force, a worker must have achieved the age of sixteen. The majority of these registrants were either interested in part-time jobs when school was in session, or full-time (40 hour) jobs during the summer.

SEX: Fifty-six percent of applicants were male. This approximates the proportion of men in the Iowa labor force but is smaller than the percent in the population of unemployed workers.

EDUCATION: Nearly seventy-seven percent of those registered with the Department had earned a minimum of a high school diploma. In a majority of cases, education helps applicants to gain acceptance with employers, even where high school training is not an obvious job requirement. It either imparts specific technical knowledge or provides evidence that workers are capable of learning new skills.

ETHNIC BACKGROUND: Members of minority groups comprised slightly more than six percent of Job Service applicants during 1987. This includes Hispanics, who may also be included in the white category. In Iowa, the great majority of minority workers are black. They are concentrated in urban areas, such as Des Moines, Waterloo, and Davenport. For this reason, offices in these communities serve greater numbers of minority workers than those elsewhere in the state.

VETERAN STATUS: Veterans comprised more than twelve percent of applicants during the period being discussed. Nationally, in December of 1987, the unemployment rate for Vietnam era veterans (4.7 percent) was higher than for nonveterans (4.2 percent). In the same month in 1986, it was lower. Comparable information is not available for Iowa. However, because the majority of Vietnam era veterans are found in the age bracket between thirty and forty-four, their rate of unemployment can be expected to be higher than the state average. During 1987, in excess of 36 thousand veterans (of all periods) utilized the services of the Department of Employment Services. Therefore, this group of applicants continues to require many job related services.

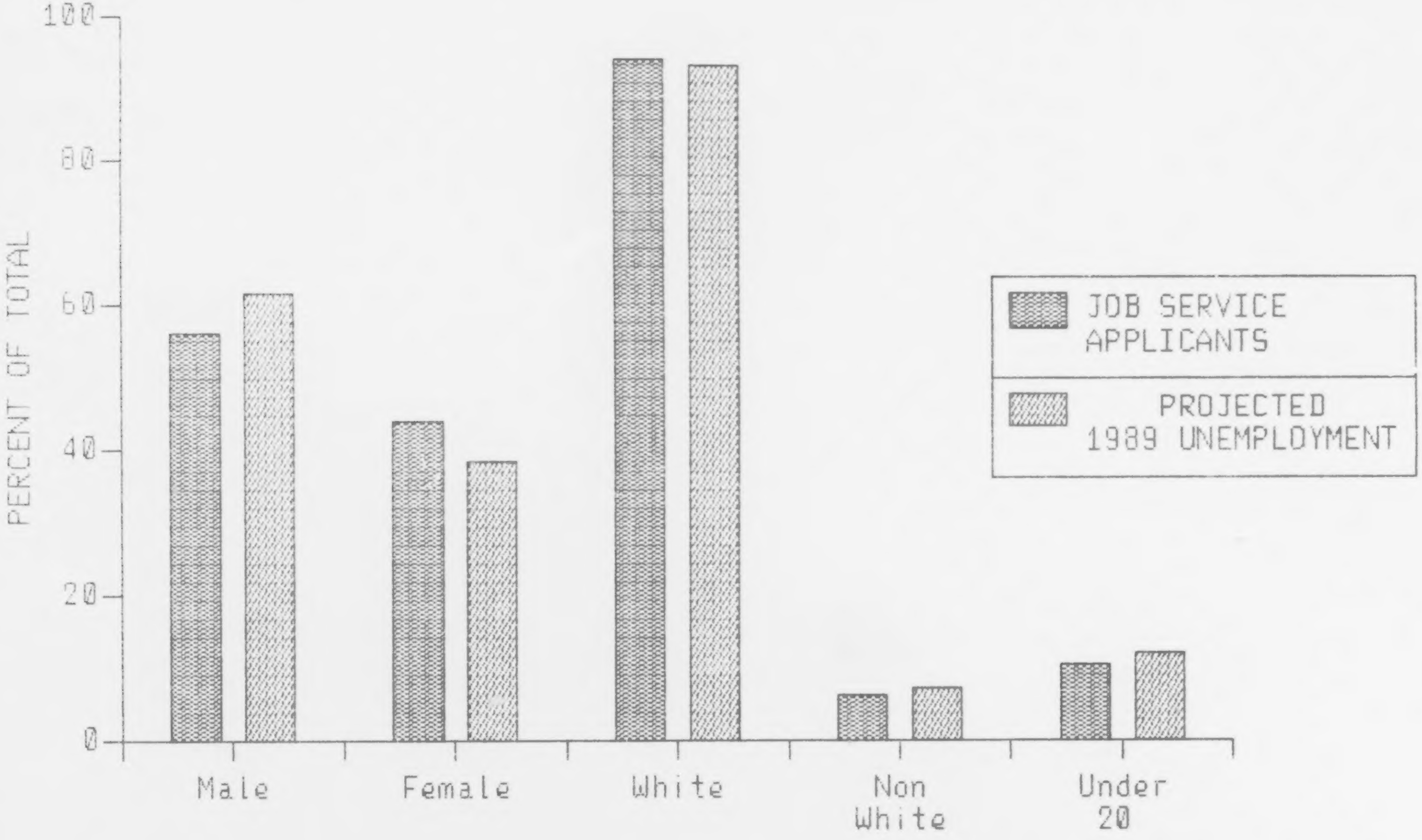
TABLE 12

CHARACTERISTICS OF JOB SERVICE APPLICANTS
JANUARY 1, 1987 THROUGH DECEMBER 31, 1987
STATE OF IOWA

CHARACTERISTIC	NUMBER	PERCENT
TOTAL	**294,586**	**100.0%**
AGE GROUP		
15 AND UNDER	2,458	0.9
16 TO 19	27,547	9.4
20 TO 21	28,123	9.6
22 TO 39	168,292	57.2
40 TO 54	50,419	17.2
55 AND OVER	17,699	6.1
SEX		
MALE	164,809	56.0
FEMALE	129,777	44.1
EDUCATION		
7 OR LESS	3,522	1.2
8 TO 11	64,714	22.0
12	144,828	49.2
OVER 12	81,114	27.6
ETHNIC GROUP		
WHITE	276,989	94.0
BLACK	10,839	3.7
HISPANIC	3,156	1.1
AMERICAN INDIAN	1,076	0.4
ASIAN/PACIFIC ISLANDER	2,345	0.8
NOT AVAILABLE	181	0.1
CLAIMANT	18,086	6.2
VETERAN	36,394	12.4
HANDICAPPED	12,153	4.1
FOOD STAMP RECIPIENT	12,955	4.4

SOURCE: LABOR MARKET INFORMATION UNIT, IOWA
DEPARTMENT OF EMPLOYMENT SERVICES

COMPARISON OF JOB SERVICE APPLICANTS WITH PROJECTED FY 1989 UNEMPLOYMENT

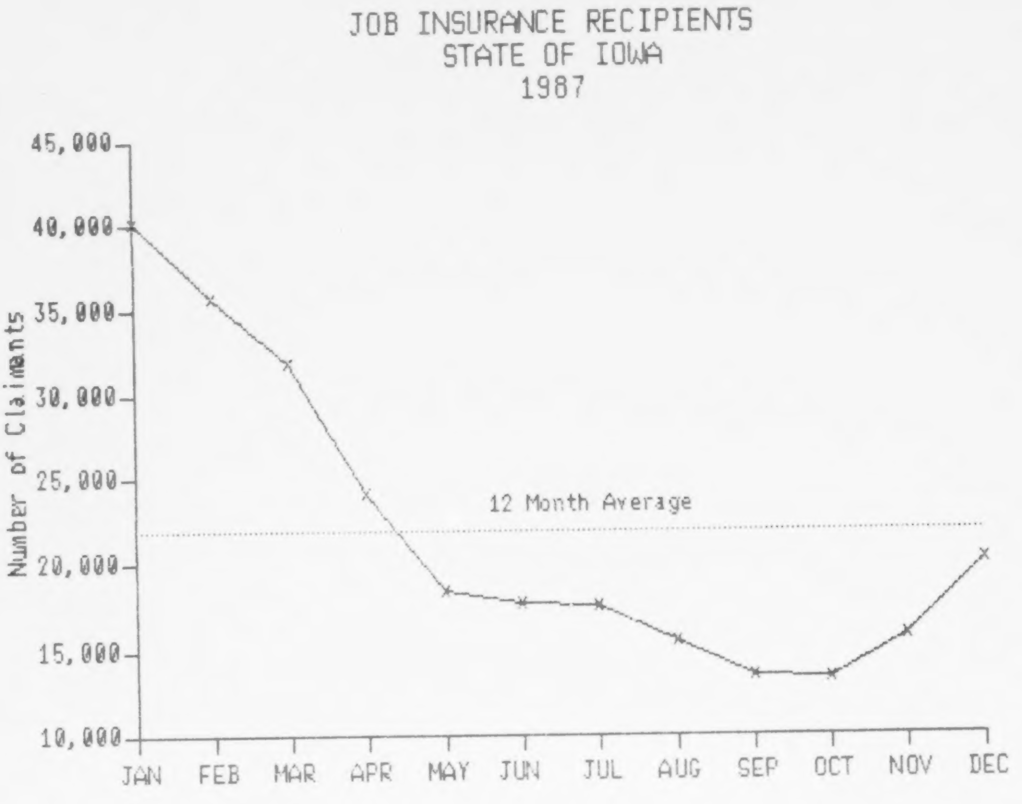


SOURCE: LABOR MARKET INFORMATION UNIT, DEPARTMENT OF EMPLOYMENT SERVICES

CHARACTERISTICS OF JOB INSURANCE RECIPIENTS

During 1987, a monthly average of 21,997 Iowans collected Job Insurance benefits. The count of recipients only represents a sample of the unemployed population. It does not include persons who lack recent work experience (new and re-entrants into the labor force). Other categories which are not tabulated with Job Insurance recipients are those who have previously exhausted their eligibility, persons who voluntarily decline to file applications for benefits, and claimants who voluntarily quit their jobs or did not work sufficiently long to qualify. While these individuals are not classified as Job Insurance recipients, they are included in total Iowa resident unemployment.

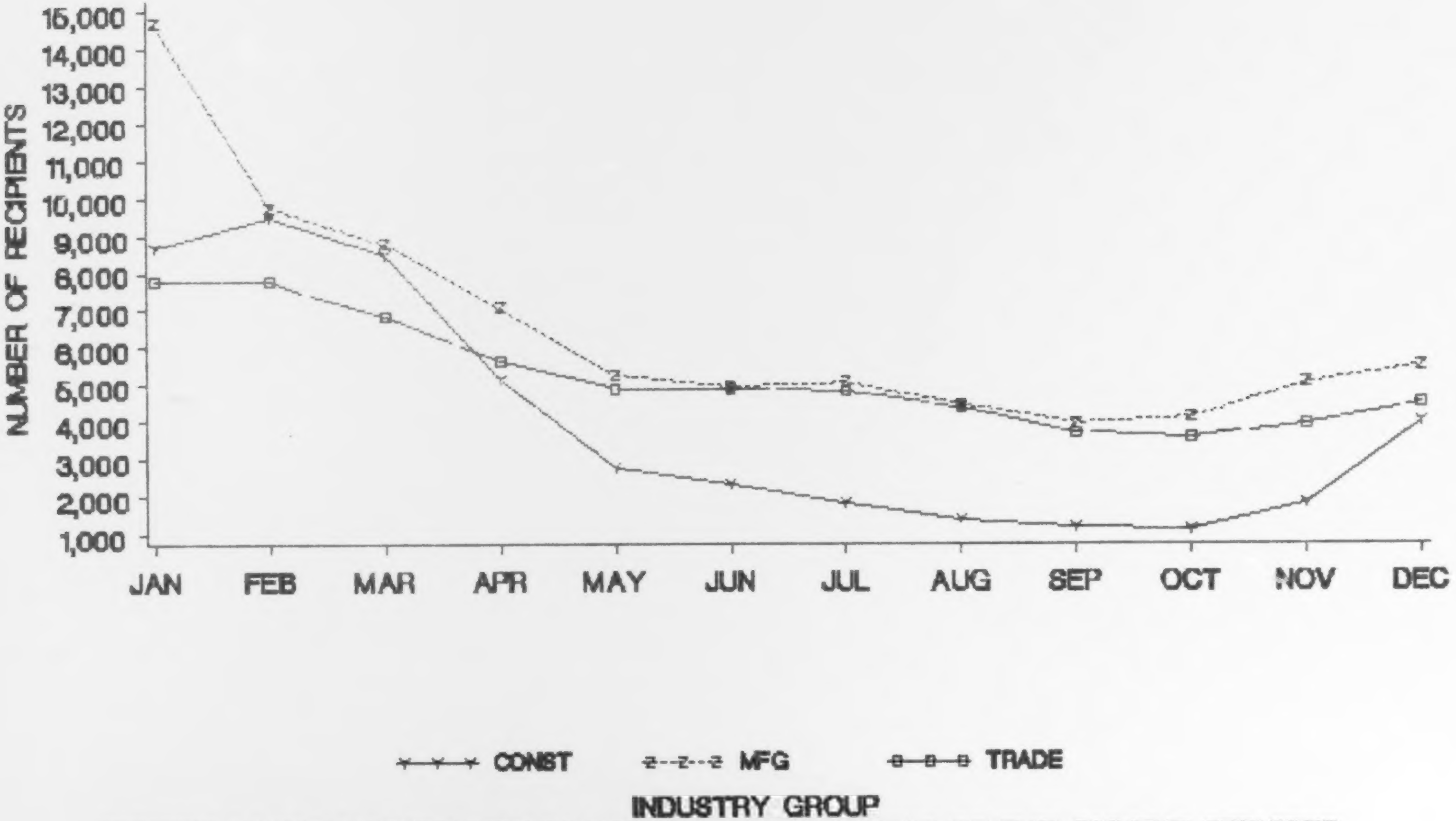
Males comprised 67 percent of the insured unemployed during 1987. This occurred because the majority of both construction and manufacturing workers are men. During 1986, the Bureau of Labor Statistics reported that women accounted for 8 percent of Iowa construction employment and 32 percent of manufacturing workers. Therefore, fluctuations in these industries will have a greater effect on the number of men receiving benefits



JOB INSURANCE RECIPIENTS
STATE OF IOWA
1987

SOURCE: LABOR MARKET INFORMATION UNIT, DEPARTMENT OF EMPLOYMENT SERVICES

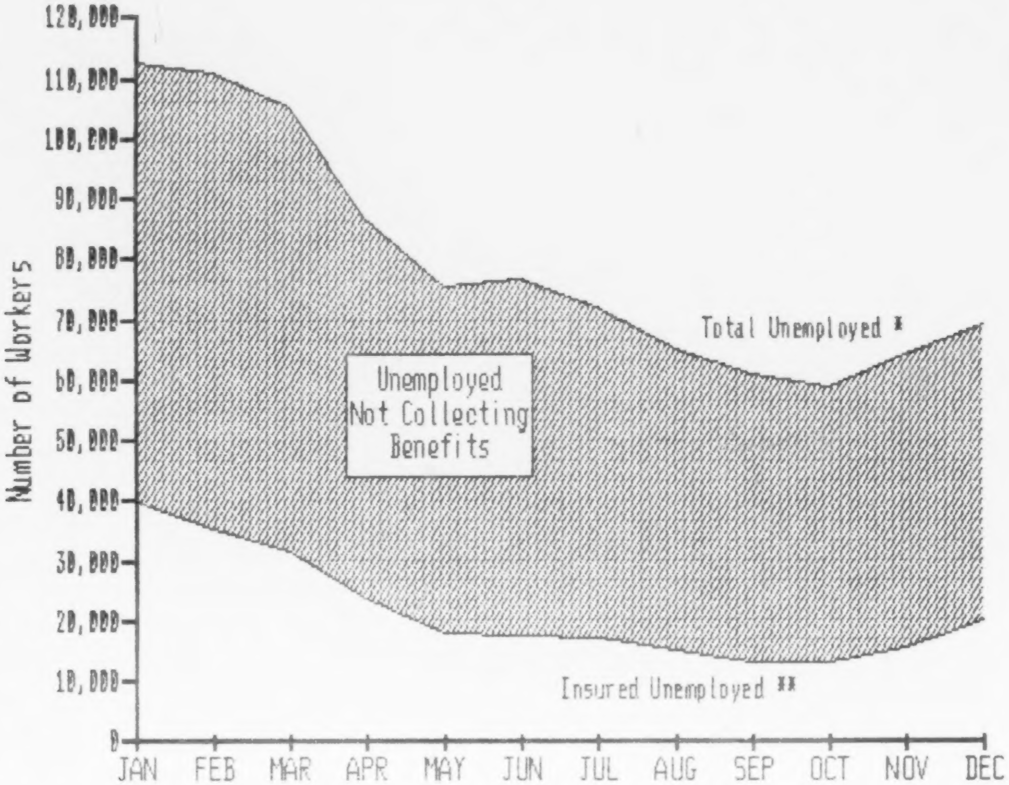
JOB INSURANCE RECIPIENTS WITH EXPERIENCE IN SELECTED INDUSTRIES
JANUARY THROUGH DECEMBER 1987
STATE OF IOWA



SOURCE: LABOR MARKET INFORMATION UNIT. DEPARTMENT OF EMPLOYMENT SERVICES.

In terms of age distribution, the greatest number of claimants were between twenty-five and thirty-four. These workers are often in the early stages of their careers and have not yet acquired the seniority which would protect them from layoffs. Finally, during the last year, 41 percent of Job Insurance recipients had collected benefits for less than six weeks. One reason for the short duration is that many manufacturers lay off the majority of their workers for short periods. Also, especially in the construction industries, workers may lose their jobs as a result of seasonal trends. These seasonal job losses are usually temporary.

TOTAL AND INSURED UNEMPLOYMENT
STATE OF IOWA
1987

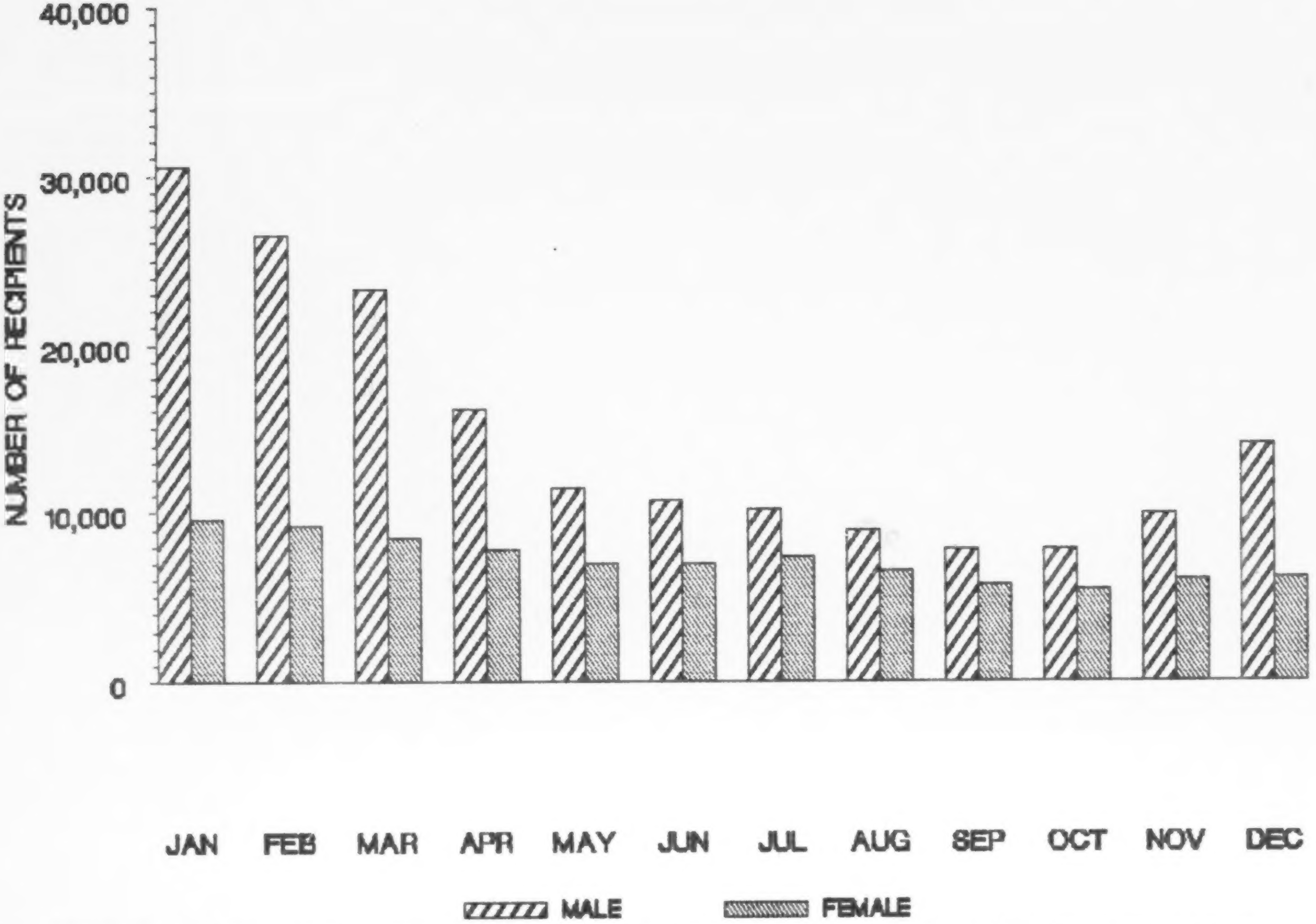


* CPS Adjusted

** Persons actually receiving Job Insurance benefits.

SOURCE: LABOR MARKET INFORMATION UNIT, DEPARTMENT OF EMPLOYMENT SERVICES.

JOB INSURANCE RECIPIENTS BY SEX
JANUARY THROUGH DECEMBER 1987
STATE OF IOWA



SOURCE: LABOR MARKET INFORMATION UNIT. DEPARTMENT OF EMPLOYMENT SERVICES.

APPENDIX A

POPULATION OF IOWA
(STATE AND COUNTIES)

1980

Population of Iowa Counties By Race and Sex

Iowa Veteran Population By County

Labor Force Status of Disabled Persons - 1980 Census

POPULATION OF IOWA COUNTIES BY RACE AND SEX
1980 CENSUS

AREA NAME	TOTAL POPULATION	MALE	FEMALE	WHITE	WHITE MALE	WHITE FEMALE	BLACK	BLACK MALE	BLACK FEMALE	OTHER RACES	OTHER MALE	OTHER FEMALE
STATE OF IOWA	**2913808**	**1438830**	**1474978**	**2841326**	**1389065**	**1452261**	**42228**	**21268**	**20960**	**28398**	**18676**	**9722**
ADAIR	9509	4843	4666	9458	4661	4797	0	0	0	0	0	0
ADAMS	5731	2918	2813	5726	2846	2880	0	0	0	0	0	0
ALLAMAKEE	15108	7619	7489	15070	7458	7612	0	0	0	0	0	0
APPANOOSE	15511	7540	7971	15282	7278	8004	123	33	90	86	63	23
AUDUBON	8559	4251	4308	8550	8550	0	0	0	0	0	0	0
BENTON	23649	11743	11906	23517	11525	11992	4	4	0	175	104	71
BLACK HAWK	137961	67622	70339	127938	61985	65953	8733	4273	4460	1616	1063	553
BOONE	26184	12921	13263	25932	12462	13470	108	71	37	136	81	55
BREMER	24820	12329	12491	24685	12141	12544	20	20	0	86	48	38
BUCHANAN	22900	11484	11416	22705	11268	11437	54	35	19	137	95	42
BUENA VISTA	20774	10255	10519	20674	9992	10682	9	9	0	108	74	34
BUTLER	17668	8883	8785	17588	8691	8897	2	2	0	88	45	43
CALHOUN	13542	6633	6909	13491	6423	7068	17	17	0	0	0	0
CARROLL	22951	11351	11600	22881	11122	11759	0	0	0	59	36	23
CASS	16932	8380	8552	16850	8141	8709	2	2	0	76	48	28
CEDAR	18635	9313	9322	18466	9062	9404	2	2	0	186	124	62
CERRO GORDO	48458	23233	25225	47862	22556	25306	111	72	39	307	197	110
CHEROKEE	16238	8092	8146	16217	7929	8288	0	0	0	0	0	0
CHICKASAW	15437	7742	7695	15412	7628	7784	6	6	0	0	0	0
CLARKE	8612	4244	4368	8572	4170	4402	0	0	0	0	0	0
CLAY	19576	9544	10032	19365	9295	10070	0	0	0	284	179	105
CLAYTON	21098	10748	10350	20919	10455	10464	5	5	0	255	168	87
CLINTON	57122	28134	28988	56242	27422	28820	516	266	250	368	224	144
CRAWFORD	18935	9496	9439	18775	9245	9530	16	16	0	165	116	49
DALLAS	29513	14597	14916	29421	14275	15146	4	4	0	0	0	0
DAVIS	9104	4556	4548	9098	9098	0	0	0	0	0	0	0
DECATUR	9794	4845	4949	9717	4669	5048	48	35	13	0	0	0
DELAWARE	18933	9452	9481	18847	9286	9561	6	6	0	74	46	28
DES MOINES	46203	22476	23727	44759	21459	23300	1011	432	579	434	279	155
DICKINSON	15629	7709	7920	15561	7552	8009	13	13	0	0	0	0
DUBUQUE	93745	45961	47784	92914	44888	48026	313	186	127	542	361	181
EMMET	13336	6639	6697	13235	6460	6775	10	10	0	103	67	36

POPULATION OF IOWA COUNTIES BY RACE AND SEX
1980 CENSUS

AREA NAME	TOTAL POPULATION	MALE	FEMALE	WHITE	WHITE MALE	WHITE FEMALE	BLACK	BLACK MALE	BLACK FEMALE	OTHER RACES	OTHER MALE	OTHER FEMALE
FAYETTE	25488	12821	12667	25251	12424	12827	43	31	12	142	98	44
FLOYD	19597	9688	9909	19508	9402	10106	2	2	0	95	51	44
FRANKLIN	13036	6487	6549	12904	6294	6610	24	24	0	89	67	22
FREMONT	9401	4655	4746	9355	4512	4843	9	9	0	0	0	0
GREENE	12119	6033	6086	12042	5821	6221	3	3	0	76	48	28
GRUNDY	14366	7206	7160	14343	7026	7317	0	0	0	0	0	0
GUTHRIE	11983	5935	6048	11957	5731	6226	3	3	0	0	0	0
HAMILTON	17862	8902	8960	17779	8720	9059	2	2	0	81	52	29
HANCOCK	13833	6953	6880	13823	6811	7012	0	0	0	0	0	0
HARDIN	21776	10932	10844	21613	10515	11098	104	90	14	0	0	0
HARRISON	16348	8122	8226	16315	7926	8389	22	22	0	0	0	0
HENRY	18890	9330	9560	18649	8994	9655	109	45	64	132	76	56
HOWARD	11114	5579	5535	11085	5447	5638	1	1	0	0	0	0
HUMBOLDT	12246	6138	6108	12185	5960	6225	17	17	0	0	0	0
IDA	8908	4529	4379	8899	4398	4501	2	2	0	0	0	0
IOWA	15429	7696	7733	15373	7495	7878	13	13	0	52	32	20
JACKSON	22503	11297	11206	22416	11104	11312	6	6	0	98	52	46
JASPER	36425	18115	18310	36238	17705	18533	61	46	15	121	75	46
JEFFERSON	16316	8245	8071	16016	7907	8109	102	59	43	237	164	73
JOHNSON	81717	40493	41224	78514	38333	40181	1272	720	552	2286	1584	702
JONES	20401	10643	9758	20233	10330	9903	103	98	5	37	32	5
KEOKUK	12921	6460	6461	12845	6281	6564	5	5	0	61	42	19
KOSSUTH	21891	11019	10872	21776	10868	10908	0	0	0	125	69	56
LEE	43106	21556	21550	41234	20183	21051	1131	693	438	699	449	250
LINN	169775	82939	86836	165489	80087	85402	2962	1434	1528	1498	982	516
LOUISA	12055	6029	6026	11905	5850	6055	4	4	0	40	31	9
LUCAS	10313	5013	5300	10237	4884	5353	6	6	0	75	44	31
LYON	12896	6458	6438	12872	6381	6491	0	0	0	0	0	0
MADISON	12597	6418	6179	12562	6191	6371	0	0	0	0	0	0
MAHASKA	22867	11406	11461	22514	10881	11633	100	85	15	306	205	101
MARION	29669	14938	14731	29337	14476	14861	125	72	53	200	132	68
MARSHALL	41652	20642	21010	40899	19942	20957	256	127	129	378	222	156
MILLS	13406	6699	6707	13350	6612	6738	20	20	0	0	0	0
MITCHELL	12329	6240	6089	12313	6004	6309	0	0	0	0	0	0

POPULATION OF IOWA COUNTIES BY RACE AND SEX
1980 CENSUS

AREA NAME	TOTAL POPULATION	MALE	FEMALE	WHITE	WHITE MALE	WHITE FEMALE	BLACK	BLACK MALE	BLACK FEMALE	OTHER RACES	OTHER MALE	OTHER FEMALE
MONONA	11692	5836	5856	11643	5674	5969	0	0	0	0	0	0
MONROE	9209	4541	4668	9158	4474	4684	6	6	0	0	0	0
MONTGOMERY	13413	6536	6877	13351	6342	7009	6	6	0	0	0	0
MUSCATINE	40436	20050	20386	38744	18931	19813	196	121	75	349	230	119
O'BRIEN	16972	8429	8543	16945	8213	8732	0	0	0	0	0	0
OSCEOLA	8371	4184	4187	8303	4095	4208	0	0	0	39	34	5
PAGE	19063	9392	9671	18926	9061	9865	13	13	0	118	76	42
PALO ALTO	12721	6432	6289	12642	6274	6368	16	16	0	98	57	41
PLYMOUTH	24743	12535	12208	24522	12139	12383	57	43	14	217	124	93
POCAHONTAS	11369	5715	5654	11361	5566	5795	3	3	0	0	0	0
POLK	303170	145951	157219	283241	134682	148559	13884	6679	7205	6180	4055	2125
POTTAWATTAMIE	86561	42075	44486	85228	40987	44241	360	190	170	764	506	258
POWESHIEK	19306	9645	9661	19115	9265	9850	63	22	41	131	96	35
RINGGOLD	6112	2948	3164	6088	2869	3219	3	3	0	0	0	0
SAC	14118	7004	7114	14088	6844	7244	3	3	0	0	0	0
SCOTT	160022	79358	80664	150763	74075	76688	6453	3125	3328	1805	1202	603
SHELBY	15043	7650	7393	15015	7456	7559	0	0	0	0	0	0
SIOUX	30813	15126	15687	30602	14828	15774	110	64	46	91	59	32
STORY	72326	37500	34826	69695	35546	34149	849	522	327	2000	1412	588
TAMA	19533	9693	9840	18675	9068	9607	16	16	0	1254	825	429
TAYLOR	8353	4144	4209	8324	3987	4337	2	2	0	0	0	0
UNION	13858	6698	7160	13732	6503	7229	19	19	0	129	81	48
VAN BUREN	8626	4356	4270	8610	4264	4346	1	1	0	0	0	0
WAPELLO	40241	19526	20715	39867	19092	20775	244	92	152	102	64	38
WARREN	34878	17294	17584	34549	16809	17740	102	61	41	183	136	47
WASHINGTON	20141	9926	10215	20030	9683	10347	33	21	12	69	45	24
WAYNE	8199	4100	4099	8161	3953	4208	0	0	0	0	0	0
WEBSTER	45953	22397	23556	44656	21224	23432	954	490	464	201	137	64
WINNEBAGO	13010	6476	6534	12897	6240	6657	40	40	0	0	0	0
WINNESHIEK	21876	10930	10946	21693	10672	11021	123	72	51	68	47	21
WOODBURY	100884	48659	52225	97991	46518	51473	1019	467	552	2280	1442	838
WORTH	9075	4550	4525	9005	4435	4570	13	13	0	0	0	0
WRIGHT	16319	8005	8314	16146	7809	8337	0	0	0	207	123	84

IOWA VETERAN POPULATION BY COUNTY
1980 CENSUS

AREA NAME	TOTAL VETERANS	MALE VETERAN	MALE NON-VETERAN	FEMALE VETERAN	FEMALE NON-VETERAN	AFTER MAY 1975	VIETNAM ERA	KOREAN CONFLICT	WORLD WAR II	WORLD WAR I	OTHER
STATE OF IOWA	358511	347147	700892	11364	1136133	9737	97650	62176	137116	9452	42380
ADAIR	1076	1041	2504	35	3718	12	241	188	478	21	136
ADAMS	686	670	1504	16	2279	16	114	129	333	24	70
ALLAMAKEE	1470	1445	3986	25	5685	29	376	333	511	66	155
APPANOOSE	1828	1779	3712	49	6270	44	492	263	812	52	165
AUDUBON	1046	1016	2083	30	3401	25	201	208	519	26	67
BENTON	3008	2927	5554	81	9022	74	802	598	1065	89	380
BLACK HAWK	17653	16957	32446	696	53903	619	5293	2761	6689	380	1911
BOONE	3294	3214	6388	80	10604	132	863	517	1340	144	298
BREMER	2762	2701	6222	61	9491	62	734	531	966	60	409
BUCHANAN	2558	2484	5439	74	8158	77	763	445	908	34	331
BUENA VISTA	2494	2402	5304	92	8348	57	470	465	1165	76	261
BUTLER	1830	1808	4602	22	6760	29	503	334	701	70	193
CALHOUN	1562	1521	3355	41	5552	9	300	267	726	68	192
CARROLL	2567	2527	5364	40	8668	69	728	428	896	78	368
CASS	1928	1875	4316	53	6825	29	454	417	753	65	210
CEDAR	2183	2114	4651	69	7102	57	549	415	791	62	309
CERRO GORDO	6747	6583	10736	164	20052	159	1654	1203	2790	180	761
CHEROKEE	2003	1958	4010	45	6343	38	489	453	768	37	218
CHICKASAW	1618	1566	3934	52	5712	34	511	276	502	38	257
CLARKE	1056	1008	2152	48	3328	42	269	181	384	40	140
CLAY	2477	2389	4532	88	7665	126	660	465	899	74	253
CLAYTON	2315	2228	5523	87	7864	62	584	427	794	86	362
CLINTON	7448	7182	12917	266	22009	207	2114	1333	2790	172	832
CRAWFORD	2085	2022	4786	63	7050	44	593	323	781	75	269
DALLAS	3509	3391	6984	118	11269	39	931	685	1264	112	478
DAVIS	962	948	2362	14	3509	38	248	117	432	14	113
DECATUR	1105	1079	2596	26	4035	43	240	180	475	41	126
DELAWARE	1769	1734	4788	35	6866	32	446	399	580	27	285
DES MOINES	6484	6326	9925	158	18368	147	1794	938	2597	142	866
DICKINSON	2130	2070	3651	60	6189	30	526	380	918	70	206
DUBUQUE	10895	10595	21541	300	35571	382	3247	2028	3726	186	1326
EMMET	1620	1543	3209	77	5162	27	419	326	645	37	166

IOWA VETERAN POPULATION BY COUNTY
1980 CENSUS

AREA NAME	TOTAL VETERANS	MALE VETERAN	MALE NON-VETERAN	FEMALE VETERAN	FEMALE NON-VETERAN	AFTER MAY 1975	VIETNAM ERA	KOREAN CONFLICT	WORLD WAR II	WORLD WAR I	OTHER
FAYETTE	2887	2817	6437	70	9710	57	707	516	1138	83	386
FLOYD	2368	2303	4581	65	7662	46	521	392	1016	51	342
FRANKLIN	1536	1498	3294	38	5171	18	367	261	691	32	167
FREMONT	1183	1153	2193	30	3757	27	259	200	492	44	161
GREENE	1453	1428	2942	25	4904	22	293	239	652	61	186
GRUNDY	1565	1527	3640	38	5600	13	387	309	647	29	180
GUTHRIE	1453	1411	2958	42	4828	23	310	265	637	51	167
HAMILTON	2287	2247	4331	40	6989	29	543	406	1042	60	207
HANCOCK	1544	1484	3570	60	5225	67	362	268	575	55	217
HARDIN	2664	2586	5526	78	8719	55	571	419	1231	71	317
HARRISON	1931	1879	3920	52	6354	38	471	353	697	88	284
HENRY	2134	2091	4770	43	7530	84	612	301	828	61	248
HOWARD	1222	1178	2904	44	4257	15	312	206	457	76	156
HUMBOLDT	1510	1486	3064	24	4789	24	305	296	629	70	186
IDA	1149	1132	2126	17	3483	16	278	208	465	39	143
IOWA	1747	1691	3967	56	6080	27	340	343	778	63	196
JACKSON	2487	2373	5501	114	8184	134	635	475	869	70	304
JASPER	4585	4419	8752	166	14165	111	1260	8[illegible]0	1684	84	586
JEFFERSON	1656	1617	4584	39	6508	75	372	256	678	75	200
JOHNSON	7809	7490	24557	319	33564	297	2903	1211	2441	100	857
JONES	2417	2371	5513	46	7283	80	684	384	873	90	306
KEOKUK	1551	1505	3263	46	5081	23	288	330	681	67	162
KOSSUTH	2469	2396	5524	73	8178	45	588	534	989	74	239
LEE	5842	5668	10117	174	16603	188	1599	928	2206	141	780
LINN	23455	22647	37530	808	65701	581	6956	4187	8095	441	3195
LOUISA	1388	1351	2958	37	4461	53	324	174	631	50	156
LUCAS	1380	1313	2352	67	4148	45	287	247	532	48	221
LYON	1347	1315	3260	32	4803	2	334	307	448	31	225
MADISON	1402	1359	3186	43	4815	30	330	340	505	52	145
MAHASKA	2658	2564	5794	94	9091	93	630	427	1135	110	263
MARION	3668	3535	7496	133	11329	64	856	671	1533	151	393
MARSHALL	5756	5554	9482	202	16215	81	1509	850	2426	293	597
MILLS	1477	1428	3393	49	5057	55	409	260	548	55	150

IOWA VETERAN POPULATION BY COUNTY
1980 CENSUS

AREA NAME	TOTAL VETERANS	MALE VETERAN	MALE NON-VETERAN	FEMALE VETERAN	FEMALE NON-VETERAN	AFTER MAY 1975	VIETNAM ERA	KOREAN CONFLICT	WORLD WAR II	WORLD WAR I	OTHER
MITCHELL	1453	1398	3060	55	4814	31	428	251	489	74	180
MONONA	1437	1417	2948	20	4686	27	390	204	610	84	122
MONROE	974	948	2412	26	3707	18	177	154	469	34	122
MONTGOMERY	1648	1583	3272	65	5475	69	361	318	714	57	129
MUSCATINE	4902	4776	9448	126	15215	136	1462	941	1632	124	607
O'BRIEN	2071	2014	4146	57	6757	27	431	471	785	81	276
OSCEOLA	1079	1054	1973	25	3233	24	250	228	423	39	115
PAGE	2283	2207	4634	76	7799	72	618	350	902	82	259
PALO ALTO	1407	1356	3312	51	4920	38	400	301	527	37	104
PLYMOUTH	2666	2606	6276	60	9322	56	740	457	1016	108	289
POCAHONTAS	1444	1378	2815	66	4454	33	261	224	691	61	174
POLK	41040	39452	67346	1588	121804	1249	11250	6858	16275	755	4653
POTTAWATTAMIE	11785	11406	18521	379	33352	465	3194	2201	4331	295	1299
POWESHIEK	2246	2175	4895	71	7682	31	650	320	896	68	281
RINGGOLD	633	622	1641	11	2552	6	126	123	284	12	82
SAC	1701	1660	3523	41	5592	36	348	271	791	78	177
SCOTT	21688	20905	35264	783	59213	657	7209	3667	7109	343	2703
SHELBY	1686	1638	3843	48	5668	21	374	304	700	86	201
SIOUX	2860	2828	7967	32	11699	56	734	610	975	75	410
STORY	6514	6285	24141	229	28432	202	2197	1064	2333	108	610
TAMA	2326	2259	4792	67	7564	46	557	418	898	65	342
TAYLOR	1022	974	2040	48	3406	21	199	162	475	58	107
UNION	1494	1461	3475	33	5591	39	439	284	512	43	177
VAN BUREN	958	928	2222	30	3332	28	253	167	352	36	122
WAPELLO	5538	5402	9155	136	16391	138	1423	768	2483	176	550
WARREN	4261	4183	7697	78	12829	110	1447	785	1184	83	652
WASHINGTON	2150	2100	5057	50	7941	26	523	386	923	66	226
WAYNE	1028	1008	2029	20	3396	8	165	142	522	63	128
WEBSTER	6268	6042	10265	226	18535	179	1494	1029	2753	143	670
WINNEBAGO	1380	1361	3479	19	5174	35	333	259	578	66	109
WINNESHIEK	2082	2025	6115	57	8533	69	500	380	717	86	330
WOODBURY	13295	12855	22127	440	39903	397	3788	2075	5308	356	1371
WORTH	1064	1025	2348	39	3586	17	264	196	420	42	125
WRIGHT	1980	1897	4093	83	6554	62	455	372	792	56	243

LABOR FORCE STATUS OF DISABLED PERSONS
1980 CENSUS

AREA NAME	DISABLED IN LABOR FORCE	PREVENTED FROM WORKING *	NOT FROM WORKING *	TOTAL LABOR FORCE
STATE OF IOWA	**61,522**	**53,254**	**15,268**	**1,373,914**
ADAIR	218	183	73	4,159
ADAMS	164	105	43	2,716
ALLAMAKEE	253	292	78	6,744
APPANOOSE	337	579	137	6,289
AUDUBON	145	112	25	3,789
BENTON	531	395	131	10,738
BLACK HAWK	2,719	2,545	832	66,122
BOONE	534	465	173	11,931
BREMER	419	277	114	11,108
BUCHANAN	515	372	94	9,605
BUENA VISTA	515	324	101	9,587
BUTLER	274	311	93	7,538
CALHOUN	232	330	73	5,468
CARROLL	386	272	137	10,297
CASS	439	327	86	7,922
CEDAR	411	303	90	8,618
CERRO GORDO	1,124	947	274	23,602
CHEROKEE	318	262	46	7,281
CHICKASAW	293	266	57	6,757
CLARKE	200	259	63	3,757
CLAY	427	341	130	9,277
CLAYTON	485	336	114	9,492
CLINTON	1,104	1,119	281	26,742
CRAWFORD	414	353	132	8,367
DALLAS	563	546	192	13,922
DAVIS	191	188	80	3,755
DECATUR	213	284	63	4,182
DELAWARE	372	350	63	8,176
DES MOINES	1,063	959	232	22,144
DICKINSON	334	290	55	7,288
DUBUQUE	1,726	1,331	388	44,354
EMMET	308	295	47	5,935
FAYETTE	569	507	108	11,122
FLOYD	368	338	108	8,651
FRANKLIN	266	185	95	5,678
FREMONT	183	218	49	4,124
GREENE	236	221	18	5,519
GRUNDY	317	238	58	6,356
GUTHRIE	238	224	54	5,082
HAMILTON	416	346	87	8,407
HANCOCK	280	275	33	6,309
HARDIN	404	397	129	9,823

* INCLUDES DISABLED PERSONS NOT IN LABOR FORCE.

LABOR FORCE STATUS OF DISABLED PERSONS
1980 CENSUS

AREA NAME	DISABLED IN LABOR FORCE	PREVENTED FROM WORKING *	NOT FROM WORKING *	TOTAL LABOR FORCE
HARRISON	316	393	119	6,766
HENRY	595	236	95	8,848
HOWARD	215	244	21	4,692
HUMBOLDT	293	214	84	5,378
IDA	221	137	32	3,820
IOWA	263	205	64	7,735
JACKSON	446	482	89	9,857
JASPER	744	712	257	17,282
JEFFERSON	419	340	146	7,859
JOHNSON	1,617	759	368	45,531
JONES	392	461	97	8,917
KEOKUK	247	298	80	5,416
KOSSUTH	489	395	88	9,553
LEE	803	836	150	19,833
LINN	3,471	2,694	939	87,169
LOUISA	208	233	68	5,376
LUCAS	339	254	74	4,588
LYON	269	199	73	5,514
MADISON	339	268	42	5,630
MAHASKA	585	576	124	10,241
MARION	613	600	185	13,551
MARSHALL	916	719	191	20,084
MILLS	232	314	47	5,751
MITCHELL	246	204	60	5,100
MONONA	307	301	72	4,797
MONROE	206	299	24	4,074
MONTGOMERY	356	336	52	6,141
MUSCATINE	832	912	226	19,031
O'BRIEN	266	308	99	7,132
OSCEOLA	244	107	43	3,604
PAGE	426	390	124	8,596
PALO ALTO	287	258	104	5,258
PLYMOUTH	471	352	145	10,888
POCAHONTAS	194	184	54	4,687
POLK	7,122	5,989	1,562	160,004
POTTAWATTAMIE	2,133	2,111	447	40,707
POWESHIEK	412	313	82	9,093
RINGGOLD	181	175	34	2,653
SAC	292	220	97	6,143
SCOTT	3,014	2,287	743	78,368
SHELBY	234	278	72	6,360
SIOUX	659	294	194	13,584

* INCLUDES DISABLED PERSONS NOT IN LABOR FORCE.

LABOR FORCE STATUS OF DISABLED PERSONS
1980 CENSUS

AREA NAME	DISABLED IN LABOR FORCE	PREVENTED FROM WORKING *	NOT FROM WORKING *	TOTAL LABOR FORCE
STORY	1,064	647	386	35,656
TAMA	409	354	152	8,164
TAYLOR	217	178	83	3,507
UNION	252	395	86	6,133
VAN BUREN	184	190	33	3,683
WAPELLO	811	1,248	308	17,016
WARREN	706	465	91	16,884
WASHINGTON	495	305	101	9,454
WAYNE	233	247	51	3,296
WEBSTER	1,027	1,092	224	21,645
WINNEBAGO	292	238	34	5,976
WINNESHIEK	429	276	112	10,249
WOODBURY	2,457	1,977	551	46,738
WORTH	179	155	55	4,069
WRIGHT	349	333	98	7,100

APPENDIX B

CIVILIAN POPULATION BY AGE, RACE AND SEX STATE OF IOWA

1980 - 1990

CIVILIAN POPULATION BY AGE, RACE, AND SEX
STATE OF IOWA
1980 - 1990

	POPULATION 1980			POPULATION 1989			POPULATION 1990			CHANGE 1980 TO 1990		
AGE AND RACE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE
TOTAL	**2,913,808**	**1,418,972**	**1,494,836**	**2,842,883**	**1,387,673**	**1,455,210**	**2,834,131**	**1,383,403**	**1,450,728**	**-79,677**	**-35,569**	**-44,108**
UNDER 15	664,279	342,664	321,615	654,427	337,668	316,759	652,415	336,631	315,784	-11,864	-6,033	-5,831
15-19	277,693	140,178	137,515	214,042	109,643	104,399	213,382	109,305	104,077	-64,311	-30,873	-33,438
20-24	271,734	135,549	136,185	251,958	127,247	124,711	251,182	126,855	124,327	-20,552	-8,694	-11,858
25-29	241,119	122,467	118,652	254,209	126,742	127,467	253,426	126,351	127,075	12,307	3,884	8,423
30-34	208,686	105,129	103,557	229,555	115,988	113,567	228,848	115,631	113,217	20,162	10,502	9,660
35-39	161,873	79,858	82,015	199,487	100,501	98,986	198,873	100,192	98,681	37,000	20,334	16,666
40-44	140,755	69,614	71,141	157,650	77,918	79,732	157,164	77,678	79,486	16,409	8,064	8,345
45-49	135,078	65,340	69,738	133,560	65,830	67,730	133,150	65,627	67,523	-1,928	287	-2,215
50-54	146,215	71,458	74,757	125,026	60,369	64,657	124,641	60,183	64,458	-21,574	-11,275	-10,299
55-59	144,553	69,612	74,941	131,248	63,458	67,790	130,845	63,264	67,581	-13,708	-6,348	-7,360
60-64	134,341	62,618	71,723	128,833	61,097	67,736	128,435	60,909	67,526	-5,906	-1,709	-4,197
65-69	117,663	53,195	64,468	117,346	53,358	63,988	116,984	53,194	63,790	-679	-1	-678
70-74	99,018	41,696	57,322	98,885	42,609	56,276	98,580	42,477	56,103	-438	781	-1,219
75 +	170,801	59,594	111,207	146,657	45,245	101,412	146,206	45,106	101,100	-24,595	-14,488	-10,107
WHITE	**2,824,427**	**1,371,958**	**1,452,469**	**2,745,720**	**1,336,775**	**1,408,945**	**2,737,269**	**1,332,661**	**1,404,608**	**-87,158**	**-39,297**	**-47,861**
UNDER 15	634,362	324,702	309,660	625,688	320,283	305,405	623,763	319,298	304,465	-10,599	-5,404	-5,195
15-19	267,556	135,247	132,309	204,455	104,761	99,694	203,826	104,439	99,387	-63,730	-30,808	-32,922
20-24	261,574	130,204	131,370	242,000	122,378	119,622	241,255	122,001	119,254	-20,319	-8,203	-12,116
25-29	232,204	117,736	114,468	244,130	121,515	122,615	243,379	121,141	122,238	11,175	3,405	7,770
30-34	201,648	101,619	100,029	220,495	111,198	109,297	219,816	110,856	108,960	18,168	9,237	8,931
35-39	157,602	77,857	79,745	192,196	96,827	95,369	191,605	96,529	95,076	34,003	18,672	15,331
40-44	136,997	67,759	69,238	152,973	75,703	77,270	152,502	75,470	77,032	15,505	7,711	7,794
45-49	132,048	63,986	68,062	129,785	63,989	65,796	129,386	63,792	65,594	-2,662	-194	-2,468
50-54	143,218	70,045	73,173	121,965	58,981	62,984	121,589	58,799	62,790	-21,629	-11,246	-10,383
55-59	142,057	68,470	73,587	128,370	62,125	66,245	127,975	61,934	66,041	-14,082	-6,536	-7,546
60-64	132,463	61,771	70,692	126,415	60,006	66,409	126,025	59,821	66,204	-6,438	-1,850	-4,488
65-69	116,227	52,539	63,688	115,526	52,572	62,954	115,170	52,410	62,760	-1,057	-129	-928
70-74	97,774	41,185	56,589	97,576	42,043	55,533	97,275	41,913	55,362	-499	728	-1,227
75 +	168,697	58,838	109,859	144,146	44,394	99,752	143,703	44,258	99,445	-24,994	-14,580	-10,414

CIVILIAN POPULATION BY AGE, RACE, AND SEX
STATE OF IOWA
1980 - 1990

	POPULATION 1980			POPULATION 1989			POPULATION 1990			CHANGE 1980 TO 1990		
AGE AND RACE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE
BLACK	41,796	20,853	20,943	44,572	22,149	22,423	44,436	22,081	22,355	2,640	1,228	1,412
UNDER 15	13,088	6,731	6,357	13,852	7,044	6,808	13,810	7,023	6,787	722	292	430
15-19	5,018	2,486	2,532	4,074	2,097	1,977	4,061	2,090	1,971	-957	-396	-561
20-24	4,810	2,553	2,257	4,693	2,333	2,360	4,679	2,326	2,353	-131	-227	96
25-29	4,116	2,217	1,899	4,638	2,426	2,212	4,623	2,418	2,205	507	201	306
30-34	3,190	1,633	1,557	4,055	2,171	1,884	4,042	2,164	1,878	852	531	321
35-39	1,859	886	973	3,192	1,645	1,547	3,182	1,640	1,542	1,323	754	569
40-44	1,754	867	887	1,967	944	1,023	1,961	941	1,020	207	74	133
45-49	1,545	682	863	1,660	812	848	1,655	809	846	110	127	-17
50-54	1,394	616	778	1,463	650	813	1,459	648	811	65	32	33
55-59	1,391	622	769	1,268	546	722	1,265	545	720	-126	-77	-49
60-64	1,120	516	604	1,220	521	699	1,216	520	696	96	4	92
65-69	795	398	397	999	422	577	996	421	575	201	23	178
70-74	671	281	390	658	306	352	656	305	351	-15	24	-39
75 +	1,045	365	680	833	232	601	831	231	600	-214	-134	-80
OTHER	47,585	26,161	21,424	52,591	28,749	23,842	52,426	28,661	23,765	4,841	2,500	2,341
UNDER 15	16,829	11,231	5,598	14,887	10,341	4,546	14,842	10,310	4,532	-1,987	-921	-1,066
15-19	5,119	2,445	2,674	5,513	2,785	2,728	5,495	2,776	2,719	376	331	45
20-24	5,350	2,792	2,558	5,265	2,536	2,729	5,248	2,528	2,720	-102	-264	162
25-29	4,799	2,514	2,285	5,441	2,801	2,640	5,424	2,792	2,632	625	278	347
30-34	3,848	1,877	1,971	5,005	2,619	2,386	4,990	2,611	2,379	1,142	734	408
35-39	2,412	1,115	1,297	4,099	2,029	2,070	4,086	2,023	2,063	1,674	908	766
40-44	2,004	988	1,016	2,710	1,271	1,439	2,701	1,267	1,434	697	279	418
45-49	1,485	672	813	2,115	1,029	1,086	2,109	1,026	1,083	624	354	270
50-54	1,603	797	806	1,598	738	860	1,593	736	857	-10	-61	51
55-59	1,105	520	585	1,610	787	823	1,605	785	820	500	265	235
60-64	758	331	427	1,198	570	628	1,194	568	626	436	237	199
65-69	641	258	383	821	364	457	818	363	455	177	105	72
70-74	573	230	343	651	260	391	649	259	390	76	29	47
75 +	1,059	391	668	1,678	619	1,059	1,672	617	1,055	613	226	387

SOURCE: LABOR MARKET INFORMATION UNIT, DEPARTMENT OF EMPLOYMENT SERVICES

APPENDIX C

LABOR FORCE SUMMARY BY AGE, RACE, AND SEX

1989 - 1990

LABOR FORCE SUMMARY BY AGE, RACE AND SEX IN STATE OF IOWA
1989 - 1990

	1989				1990			
AGE GROUP	LABOR FORCE	EMPLOYMENT	UNEMPLOYMENT	RATE	LABOR FORCE	EMPLOYMENT	UNEMPLOYMENT	RATE
TOTAL	**1,435,280**	**1,370,690**	**64,590**	**4.5**	**1,436,660**	**1,364,820**	**71,830**	**5.0**
16-19	103,620	96,020	7,600	7.3	101,470	93,480	7,990	7.9
20-24	203,890	188,000	15,890	7.8	204,430	184,990	19,450	9.5
25-29	216,610	203,780	12,830	5.9	217,180	203,380	13,810	6.4
30-34	196,050	187,920	8,120	4.1	196,570	187,800	8,770	4.5
35-44	312,780	302,320	10,460	3.3	313,610	302,320	11,290	3.6
45-54	209,740	203,690	6,050	2.9	210,300	203,730	6,570	3.1
55-59	83,910	82,120	1,790	2.1	84,140	82,180	1,960	2.3
60-64	61,900	60,710	1,200	1.9	62,070	60,760	1,310	2.1
65+	46,780	46,130	650	1.4	46,910	46,200	710	1.5
MALE	**806,690**	**766,920**	**39,770**	**4.9**	**807,590**	**763,350**	**44,240**	**5.5**
16-19	53,000	48,040	4,960	9.4	51,900	46,780	5,120	9.9
20-24	110,730	100,850	9,880	8.9	111,030	98,270	12,750	11.5
25-29	122,390	113,650	8,750	7.1	122,720	113,460	9,250	7.5
30-34	113,950	108,890	5,060	4.4	114,250	108,890	5,360	4.7
35-44	171,830	165,500	6,330	3.7	172,290	165,600	6,680	3.9
45-54	117,130	114,000	3,130	2.7	117,440	114,130	3,310	2.8
55-59	49,650	48,920	730	1.5	49,780	49,010	770	1.6
60-64	36,990	36,410	580	1.6	37,090	36,470	620	1.7
65+	31,020	30,660	350	1.1	31,100	30,730	380	1.2
FEMALE	**628,590**	**603,770**	**24,820**	**3.9**	**629,070**	**601,480**	**27,590**	**4.4**
16-19	50,620	47,980	2,630	5.2	49,570	46,700	2,870	5.8
20-24	93,160	87,160	6,010	6.4	93,410	86,710	6,690	7.2
25-29	94,220	90,130	4,080	4.3	94,470	89,920	4,550	4.8
30-34	82,100	79,030	3,060	3.7	82,310	78,900	3,410	4.1
35-44	140,950	136,820	4,130	2.9	141,320	136,720	4,600	3.3
45-54	92,610	89,690	2,930	3.2	92,860	89,600	3,260	3.5
55-59	34,270	33,210	1,060	3.1	34,360	33,170	1,180	3.4
60-64	24,910	24,290	620	2.5	24,980	24,290	690	2.8
65+	15,760	15,460	300	1.9	15,810	15,470	330	2.1

LABOR FORCE SUMMARY BY AGE, RACE AND SEX IN STATE OF IOWA
1989 - 1990

AGE GROUP	1989				1990			
	LABOR FORCE	EMPLOYMENT	UNEMPLOYMENT	RATE	LABOR FORCE	EMPLOYMENT	UNEMPLOYMENT	RATE
WHITE	**1,389,160**	**1,329,080**	**60,090**	**4.3**	**1,390,490**	**1,323,670**	**66,830**	**4.8**
16-19	100,230	93,040	7,190	7.2	98,140	90,600	7,540	7.7
20-24	196,470	181,730	14,730	7.5	196,990	178,830	18,160	9.2
25-29	208,530	196,720	11,810	5.7	209,080	196,420	12,670	6.1
30-34	188,600	181,200	7,400	3.9	189,100	181,130	7,970	4.2
35-44	302,840	292,930	9,920	3.3	303,640	292,960	10,680	3.5
45-54	204,070	198,420	5,650	2.8	204,610	198,490	6,120	3.0
55-59	82,130	80,460	1,680	2.0	82,350	80,520	1,830	2.2
60-64	60,650	59,520	1,130	1.9	60,810	59,580	1,230	2.0
65+	45,650	45,070	580	1.3	45,770	45,150	630	1.4
WHITE MALE	**779,610**	**742,750**	**36,860**	**4.7**	**780,480**	**739,470**	**41,010**	**5.3**
16-19	51,240	46,480	4,770	9.3	50,180	45,270	4,910	9.8
20-24	106,030	97,040	8,990	8.5	106,310	94,550	11,760	11.1
25-29	117,200	109,140	8,060	6.9	117,510	109,020	8,490	7.2
30-34	109,190	104,540	4,650	4.3	109,480	104,580	4,900	4.5
35-44	166,510	160,480	6,030	3.6	166,950	160,590	6,360	3.8
45-54	113,920	111,050	2,870	2.5	114,230	111,200	3,030	2.6
55-59	48,590	47,950	640	1.3	48,720	48,050	670	1.4
60-64	36,250	35,730	520	1.4	36,350	35,800	550	1.5
65+	30,680	30,340	330	1.1	30,760	30,410	350	1.1
WHITE FEMALE	**609,550**	**586,330**	**23,220**	**3.8**	**610,010**	**584,190**	**25,820**	**4.2**
16-19	48,980	46,560	2,420	4.9	47,960	45,330	2,640	5.5
20-24	90,440	84,690	5,740	6.3	90,670	84,280	6,400	7.1
25-29	91,330	87,580	3,750	4.1	91,570	87,390	4,180	4.6
30-34	79,410	76,660	2,750	3.5	79,620	76,550	3,070	3.9
35-44	136,330	132,450	3,880	2.8	136,690	132,370	4,330	3.2
45-54	90,140	87,370	2,780	3.1	90,380	87,290	3,100	3.4
55-59	33,540	32,510	1,040	3.1	33,630	32,480	1,160	3.4
60-64	24,400	23,790	610	2.5	24,470	23,780	680	2.8
65+	14,980	14,730	250	1.7	15,020	14,740	280	1.8

LABOR FORCE SUMMARY BY AGE, RACE AND SEX IN STATE OF IOWA
1989 - 1990

	1989				1990			
AGE GROUP	LABOR FORCE	EMPLOYMENT	UNEMPLOYMENT	RATE	LABOR FORCE	EMPLOYMENT	UNEMPLOYMENT	RATE
BLACK	20,920	18,610	2,310	11.0	20,940	18,380	2,570	12.2
16-19	1,290	1,010	270	21.2	1,260	960	300	23.6
20-24	3,510	2,840	670	19.0	3,520	2,770	740	21.1
25-29	3,790	3,300	490	12.9	3,800	3,260	540	14.3
30-34	3,450	3,140	310	9.0	3,460	3,110	350	10.0
35-44	4,260	3,990	260	6.2	4,270	3,970	300	6.9
45-54	2,580	2,400	180	7.1	2,590	2,380	210	8.0
55-59	750	700	50	6.8	750	690	60	7.8
60-64	650	620	30	4.2	650	620	30	4.8
65+	650	610	40	6.1	650	610	40	6.7
BLACK MALE	12,000	10,590	1,420	11.8	12,020	10,440	1,580	13.1
16-19	670	550	120	17.7	650	520	130	19.6
20-24	2,180	1,700	480	22.0	2,190	1,650	540	24.5
25-29	2,410	2,060	350	14.4	2,420	2,030	390	16.0
30-34	2,160	1,980	180	8.3	2,160	1,960	200	9.2
35-44	2,260	2,140	120	5.4	2,270	2,130	140	6.0
45-54	1,450	1,350	100	7.1	1,460	1,340	120	7.9
55-59	400	360	40	10.1	400	350	50	11.3
60-64	340	310	30	8.0	340	310	30	9.1
65+	140	140	0	0.0	140	140	0	0.0
BLACK FEMALE	8,920	8,030	890	10.0	8,930	7,940	990	11.1
16-19	620	460	160	25.0	610	440	170	27.8
20-24	1,320	1,140	190	14.0	1,330	1,120	210	15.6
25-29	1,380	1,240	140	10.3	1,390	1,230	160	11.4
30-34	1,290	1,160	130	10.3	1,300	1,150	150	11.4
35-44	2,000	1,850	140	7.2	2,000	1,840	160	8.0
45-54	1,130	1,050	80	7.2	1,130	1,040	90	8.0
55-59	350	340	10	3.2	350	340	10	3.7
60-64	310	310	0	0.0	310	310	0	0.0
65+	510	470	40	7.8	520	470	40	8.5

LABOR FORCE SUMMARY BY AGE, RACE AND SEX IN STATE OF IOWA
1989 - 1990

AGE GROUP	1989				1990			
	LABOR FORCE	EMPLOYMENT	UNEMPLOYMENT	RATE	LABOR FORCE	EMPLOYMENT	UNEMPLOYMENT	RATE
OTHER NONWHITE	**25,210**	**23,010**	**2,200**	**8.7**	**25,230**	**22,780**	**2,440**	**9.7**
16-19	2,110	1,970	140	6.4	2,070	1,920	150	7.1
20-24	3,920	3,430	490	12.4	3,930	3,390	540	13.8
25-29	4,290	3,750	530	12.5	4,300	3,700	600	13.8
30-34	4,000	3,590	410	10.3	4,010	3,550	460	11.4
35-44	5,680	5,400	280	4.9	5,690	5,390	310	5.4
45-54	3,090	2,880	220	7.0	3,100	2,860	240	7.8
55-59	1,040	970	60	6.2	1,040	970	70	6.7
60-64	610	570	40	6.3	610	560	40	7.1
65+	480	450	30	6.9	480	440	40	7.7
OTHER NONWHITE MALE	**15,080**	**13,580**	**1,490**	**9.9**	**15,090**	**13,430**	**1,660**	**11.0**
16-19	1,090	1,010	80	7.2	1,070	990	90	7.9
20-24	2,520	2,110	410	16.2	2,530	2,070	460	18.0
25-29	2,780	2,440	340	12.3	2,790	2,410	380	13.7
30-34	2,600	2,370	230	9.0	2,610	2,350	260	10.0
35-44	3,060	2,890	170	5.7	3,070	2,880	190	6.2
45-54	1,760	1,600	150	8.7	1,760	1,590	170	9.6
55-59	660	610	50	7.9	660	610	60	8.6
60-64	400	370	30	7.7	410	370	40	8.6
65+	200	180	20	10.3	200	180	20	11.8
OTHER NONWHITE FEMALE	**10,130**	**9,420**	**710**	**7.0**	**10,130**	**9,350**	**780**	**7.7**
16-19	1,020	960	60	5.5	1,000	930	60	6.1
20-24	1,400	1,320	80	5.6	1,410	1,320	90	6.3
25-29	1,510	1,310	190	12.7	1,510	1,300	210	14.2
30-34	1,400	1,220	180	12.7	1,400	1,200	200	14.1
35-44	2,620	2,510	110	4.0	2,630	2,510	120	4.4
45-54	1,340	1,270	70	4.9	1,340	1,270	70	5.4
55-59	370	360	10	3.2	380	360	10	3.5
60-64	200	200	10	3.5	200	190	10	4.0
65+	280	260	10	4.4	280	260	10	4.7

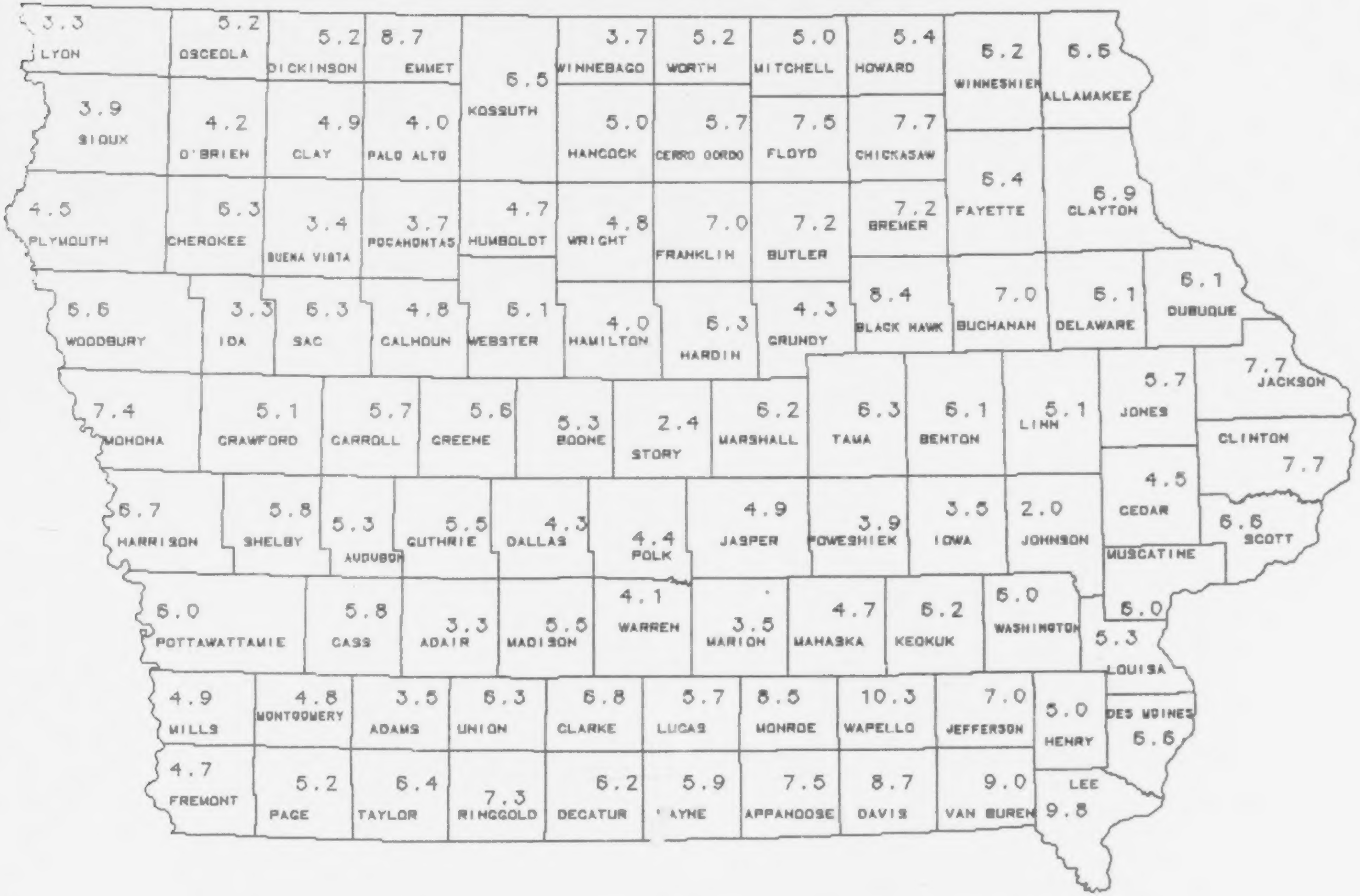
SOURCE: LABOR MARKET INFORMATION UNIT, DEPARTMENT OF EMPLOYMENT SERVICES

APPENDIX D

IOWA UNEMPLOYMENT RATES BY COUNTY
UNEMPLOYMENT RATES BY STATE

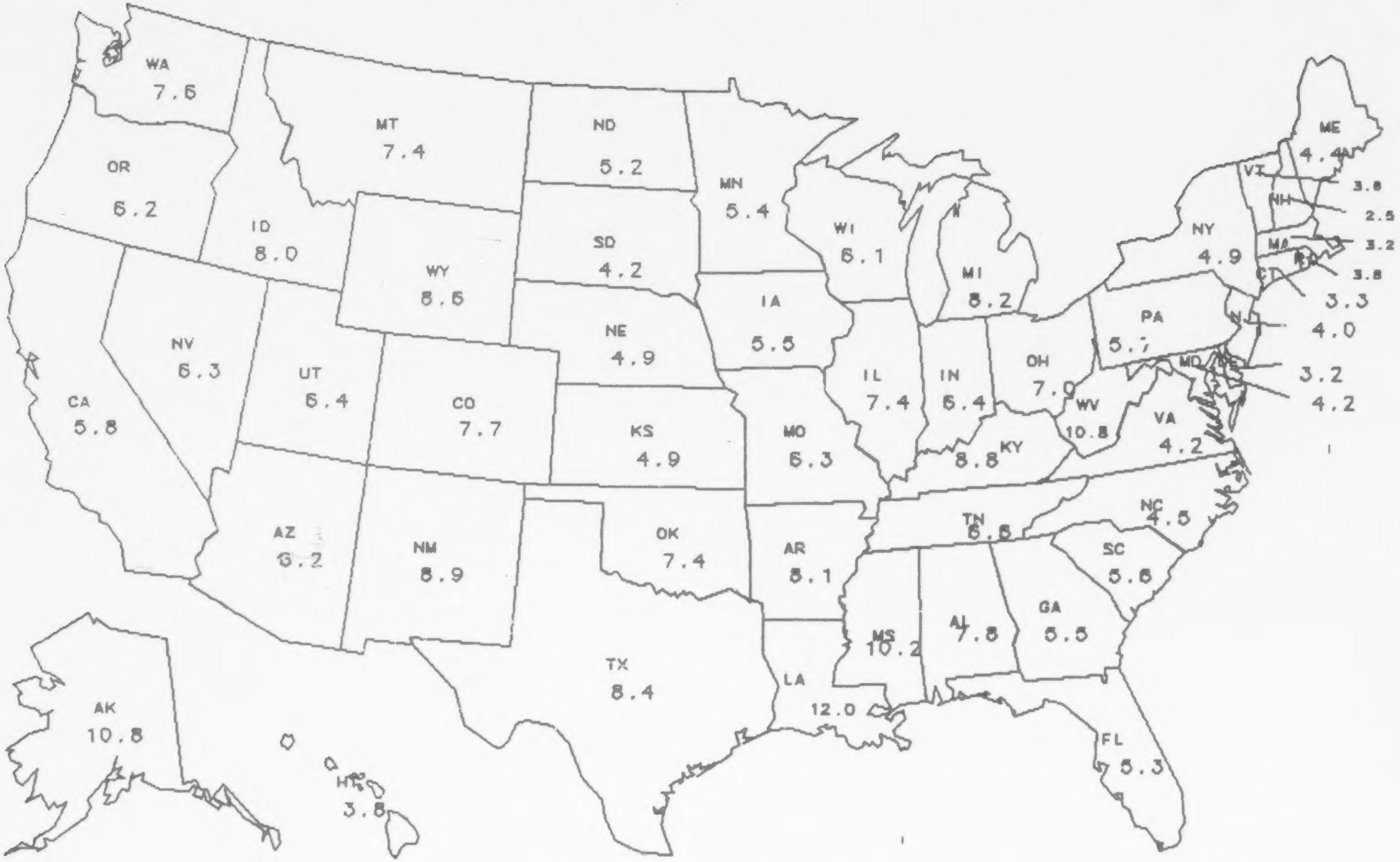
1987 ANNUAL AVERAGES

IOWA UNEMPLOYMENT RATES BY COUNTY
1987 ANNUAL AVERAGE


3.3 LYON
5.2 OSCEOLA
5.2 DICKINSON
8.7 EMMET
6.5 KOSSUTH
3.7 WINNEBAGO
5.2 WORTH
5.0 MITCHELL
5.4 HOWARD
6.2 WINNESHIEK
6.6 ALLAMAKEE
3.9 SIOUX
4.2 O'BRIEN
4.9 CLAY
4.0 PALO ALTO
5.0 HANCOCK
5.7 CERRO GORDO
7.5 FLOYD
7.7 CHICKASAW
6.4 FAYETTE
6.9 CLAYTON
4.5 PLYMOUTH
6.3 CHEROKEE
3.4 BUENA VISTA
3.7 POCAHONTAS
4.7 HUMBOLDT
4.8 WRIGHT
7.0 FRANKLIN
7.2 BUTLER
7.2 BREMER
6.6 WOODBURY
3.3 IDA
6.3 SAC
4.8 CALHOUN
6.1 WEBSTER
4.0 HAMILTON
6.3 HARDIN
4.3 GRUNDY
8.4 BLACK HAWK
7.0 BUCHANAN
6.1 DELAWARE
6.1 DUBUQUE
7.4 MONONA
5.1 CRAWFORD
5.7 CARROLL
5.6 GREENE
5.3 BOONE
2.4 STORY
6.2 MARSHALL
6.3 TAMA
6.1 BENTON
5.1 LINN
5.7 JONES
7.7 JACKSON
7.7 CLINTON
6.7 HARRISON
5.8 SHELBY
5.3 AUDUBON
5.5 GUTHRIE
4.3 DALLAS
4.4 POLK
4.9 JASPER
3.9 POWESHIEK
3.5 IOWA
2.0 JOHNSON
4.5 CEDAR
6.6 SCOTT
6.0 MUSCATINE
6.0 POTTAWATTAMIE
5.8 CASS
3.3 ADAIR
5.5 MADISON
4.1 WARREN
3.5 MARION
4.7 MAHASKA
6.2 KEOKUK
6.0 WASHINGTON
5.3 LOUISA
4.9 MILLS
4.8 MONTGOMERY
3.5 ADAMS
6.3 UNION
6.8 CLARKE
5.7 LUCAS
8.5 MONROE
10.3 WAPELLO
7.0 JEFFERSON
5.0 HENRY
6.6 DES MOINES
4.7 FREMONT
5.2 PAGE
6.4 TAYLOR
7.3 RINGGOLD
6.2 DECATUR
5.9 WAYNE
7.5 APPANOOSE
8.7 DAVIS
9.0 VAN BUREN
9.8 LEE

SOURCE: LABOR MARKET INFORMATION UNIT, DEPARTMENT OF EMPLOYMENT SERVICES

UNEMPLOYMENT RATES BY STATE
1987 ANNUAL AVERAGE


WA
7.6
MT
7.4
ND
5.2
MN
5.4
ME
4.4
VT
3.6
NH
2.5
MA
3.2
RI
3.8
CT
3.3
NJ
4.0
DE
3.2
MD
4.2
OR
6.2
ID
8.0
WY
8.6
SD
4.2
WI
6.1
MI
8.2
NY
4.9
PA
5.7
NV
6.3
UT
6.4
CO
7.7
NE
4.9
IA
5.5
IL
7.4
IN
6.4
OH
7.0
WV
10.8
VA
4.2
CA
5.8
KS
4.9
MO
6.3
KY
8.8
NC
4.5
TN
6.6
AZ
6.2
NM
8.9
OK
7.4
AR
8.1
SC
5.6
MS
10.2
AL
7.8
GA
5.5
TX
8.4
LA
12.0
FL
5.3
AK
10.8
HI
3.8

SOURCE: LABOR MARKET INFORMATION UNIT, IOWA DEPARTMENT OF EMPLOYMENT SERVICES

APPENDIX E

IOWA NONAGRICULTURAL WAGE & SALARY EMPLOYMENT

1978 - 1987

IOWA NONAGRICULTURAL WAGE & SALARY EMPLOYMENT
STATE OF IOWA

1978-1987
ANNUAL AVERAGES
(IN THOUSANDS)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Nonagriculture Wage & Salary (Except Domestics)	1122.3	1135.5	1110.9	1089.2	1041.9	1040.4	1074.7	1074.1	1073.8	1107.2
Manufacturing	252.5	259.8	244.8	236.5	209.8	202.3	211.9	204.7	201.7	213.4
Durable Goods	157.2	163.1	150.0	143.8	121.9	114.8	123.5	117.4	114.5	123.9
Stone, Clay & Glass	7.9	7.8	6.4	5.5	4.9	4.9	4.8	4.4	4.8	6.2
Primary Metal	8.8	9.2	8.5	8.6	7.9	7.1	7.9	7.3	6.7	6.8
Fabricated Metal	20.2	20.4	19.3	18.7	16.2	15.7	16.0	15.3	15.5	15.9
Lumber & Furniture	10.0	10.2	8.5	8.3	7.4	8.2	8.9	9.0	9.7	10.8
Machinery (Except Electric)	64.3	68.4	64.9	62.0	48.5	42.6	46.3	42.4	37.7	41.3
Farm Machinery	26.7	28.8	26.9	26.2	21.1	18.0	18.5	15.2	11.5	13.5
Construction Machinery	22.1	23.2	22.1	19.5	13.4	11.4	12.9	12.3	11.3	12.0
Electrical Equipment	25.0	26.0	25.3	23.5	21.3	19.8	20.3	20.4	21.7	23.7
Transportation Equipment	10.8	10.1	7.4	7.6	6.7	7.4	9.7	9.2	9.5	10.4
Instruments & Miscellaneous Manufacturing	10.2	11.1	9.7	9.6	9.0	9.1	9.6	9.4	8.9	8.8
Nondurable Goods	95.3	96.7	94.8	92.7	88.0	87.4	88.4	87.3	87.2	89.5
Food & Kindred Products	48.3	48.9	48.5	46.9	44.6	43.9	42.5	41.0	40.8	41.8
Meat Products	24.4	24.4	24.9	23.9	22.3	22.1	21.0	19.7	19.9	20.6
Grain Products	11.0	11.5	11.3	11.1	10.4	9.9	9.4	9.1	8.7	8.8
Bakery Products	2.6	2.6	2.4	2.1	2.0	2.0	2.0	1.9	1.9	1.9
Apparel	4.4	4.2	4.1	4.0	3.9	4.0	4.1	4.4	4.3	4.4
Paper	4.1	4.1	4.2	3.9	3.7	3.5	3.7	4.4	4.9	4.4
Printing & Publishing	17.1	17.7	17.8	17.6	17.5	17.5	18.2	18.4	18.8	19.5
Newspaper	7.3	7.6	7.4	7.1	6.9	6.8	7.0	7.2	7.1	6.9
Chemicals	7.9	8.1	7.8	7.6	6.9	6.6	6.6	6.4	6.2	6.3
Rubber	11.1	11.6	10.3	10.6	9.5	10.2	11.6	11.0	10.6	11.6
Textiles, Petroleum, Coal, & Leather	2.3	2.3	2.1	2.1	1.8	1.8	1.7	1.7	1.6	1.6
Nonmanufacturing	869.8	875.7	866.1	852.7	832.1	838.1	862.8	869.4	872.1	893.8
Mining	2.5	2.6	2.2	2.0	1.7	1.9	2.0	2.1	2.0	2.2
Construction	61.1	59.9	50.9	44.4	38.1	35.9	38.7	36.6	35.2	35.0
Transportation, Communication, & Public Utilities	56.9	58.2	56.3	55.0	52.7	51.3	51.5	52.0	51.5	52.9
Railroad	8.9	8.8	8.0	7.8	6.5	5.7	5.8	5.5	5.0	4.5
Communication	13.6	14.5	14.5	14.2	13.7	12.7	11.8	11.7	11.4	11.5
Electric & Gas	10.3	10.4	10.5	10.5	10.4	10.3	10.3	10.3	10.0	10.0

IOWA NONAGRICULTURAL WAGE & SALARY EMPLOYMENT
STATE OF IOWA

1978-1987
ANNUAL AVERAGES
(IN THOUSANDS)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Wholesale & Retail Trade	286.5	286.4	280.7	277.4	267.2	268.7	277.1	276.6	274.4	281.4
Wholesale Trade	75.9	76.1	76.7	75.4	73.0	71.9	74.0	72.4	70.4	71.8
Retail Trade	210.6	210.3	203.9	202.0	194.2	196.8	203.1	204.2	204.0	209.7
General Merchandise	29.0	28.2	27.4	27.2	26.1	25.5	26.8	27.1	26.9	27.8
Finance, Insurance & Real Estate	55.4	56.8	58.3	59.1	58.9	59.8	61.9	62.8	63.3	64.6
Banking	17.2	17.8	18.1	18.4	18.4	18.5	18.6	18.6	18.2	18.0
Insurance	21.9	22.7	23.5	23.8	24.4	24.6	25.3	26.1	26.4	27.5
Services	199.3	207.3	210.3	211.1	211.4	217.1	227.0	232.5	238.5	246.3
Medical Services	71.7	74.4	77.1	79.0	80.4	80.4	79.9	79.7	82.0	84.8
Government	208.2	204.5	207.4	203.8	202.0	203.4	204.5	206.8	207.3	211.2
Federal	20.2	19.9	21.4	19.5	19.5	19.6	19.8	20.2	20.4	21.2
State	52.3	53.1	52.8	52.7	53.9	54.8	56.2	58.5	58.6	59.1
Local	135.7	131.5	133.2	131.6	128.6	129.0	128.6	128.1	128.3	131.0
Labor-Management Disputes	0.8	3.0	0.7	0.7	0.5	1.5	0.5	0.2	3.6	1.3

NOTE: Detail may not add to total due to rounding.

Prepared by Department of Employment Services, Labor Market Information Unit.

APPENDIX F

IOWA INDUSTRY PROJECTIONS

1987 - 1990

IOWA INDUSTRY PROJECTIONS
STATE OF IOWA
1987 - 1990

SIC CODE	TITLE	1987	1989	1990	CHANGE 1987 - 1990	PERCENT CHANGE
MINING						
12	BITUMINOUS COAL MINING	170	190	180	10	4.7
13	OIL AND GAS EXTRACTION	80	80	80	0	1.3
14	NONMETALIC MINING AND QUARRYING	1,760	1,930	1,840	90	4.9
	TOTAL FOR MINING	**2,000**	**2,200**	**2,100**	**100**	**4.7**
CONSTRUCTION						
15	BUILDING CONSTRUCTION	10,100	9,000	8,810	-1,290	-12.8
16	CONSTRUCTION OTHER	7,500	6,550	6,520	-980	-13.1
17	CONSTRUCTION-SPECIAL TRADE CONTRACTORS	21,900	19,510	19,110	-2,800	-12.8
	TOTAL FOR CONSTRUCTION	**39,500**	**35,060**	**34,430**	**-5,070**	**-12.8**
MANUFACTURING						
20	FOOD AND KINDRED PRODUCTS	41,530	40,530	39,530	-2,010	-4.8
22	TEXTILE MILL PRODUCTS	620	620	620	0	0.0
23	APPAREL	4,030	4,020	3,880	-140	-3.6
24	LUMBER AND WOOD PRODUCTS	4,600	4,460	4,460	-140	-3.1
25	FURNITURE AND FIXTURES	4,400	4,250	4,250	-150	-3.3
26	PAPER AND ALLIED PRODUCTS	3,940	4,020	3,920	-20	-0.5
27	PRINTING AND PUBLISHING	18,980	19,180	19,180	190	1.0
28	CHEMICALS AND ALLIED PRODUCTS	6,220	6,110	6,010	-210	-3.3
29	PETROLEUM REFINING	180	180	180	0	0.0
30	RUBBER AND PLASTICS	10,530	10,630	10,750	230	2.1

IOWA INDUSTRY PROJECTIONS
STATE OF IOWA
1987 - 1990

SIC CODE	TITLE	1987	1989	1990	CHANGE 1987 - 1990	PERCENT CHANGE
31	LEATHER PRODUCTS	700	700	700	0	0.0
32	STONE CLAY AND GLASS	4,930	5,330	5,330	400	8.1
33	PRIMARY METALS	7,450	7,550	7,250	-200	-2.7
34	FABRICATED METALS	16,000	15,710	15,130	-870	-5.5
35	MACHINERY,EXCEPT ELECTRICAL	40,210	38,330	37,930	-2,280	-5.7
36	ELECTRICAL MACHINERY	20,470	20,670	20,580	110	0.5
37	TRANSPORTATION EQUIPMENT	6,350	5,970	5,970	-380	-6.0
38	MEASURING,ANALYZING,CONTROLLING	3,590	3,580	3,540	-50	-1.4
39	MISCELLANEOUS MANUFACTURING	5,650	5,590	5,530	-120	-2.2
	TOTAL FOR MANUFACTURING	**200,370**	**197,930**	**194,720**	**-5,650**	**-2.8**
TRANSPORTATION, COMMUNICATION, PUBLIC UTILITIES						
40	RAILROAD TRANSPORTATION	4,900	4,600	4,400	-500	-10.2
41	LOCAL AND SUBURBAN TRANSIT	2,840	2,800	2,800	-40	-1.5
42	MOTOR FREIGHT TRANSPORTATION	18,740	18,540	18,440	-300	-1.6
44	WATER TRANSPORTATION	290	290	290	0	-1.0
45	TRANSPORTATION BY AIR	1,480	1,460	1,460	-20	-1.3
46	PIPE LINES	230	230	230	0	-1.7
47	TRANSPORTATION SERVICES	1,740	1,720	1,720	-30	-1.5
48	COMMUNICATION	11,100	11,100	11,100	0	0.0
49	ELECTRIC,GAS,SANITARY SERVICES	10,060	10,150	10,150	100	1.0
	TOTAL FOR TRANSPORTATION, COMMUNICATION, PUBLIC	**51,390**	**50,890**	**50,580**	**-800**	**-1.6**

IOWA INDUSTRY PROJECTIONS
STATE OF IOWA
1987 - 1990

SIC CODE	TITLE	1987	1989	1990	CHANGE 1987 - 1990	PERCENT CHANGE
TRADE						
50	WHOLESALE TRADE-DURABLE GOODS	32,390	32,500	32,390	0	0.0
51	WHOLESALE TRADE-NONDURABLE GOODS	40,900	40,200	39,200	-1,710	-4.2
52	BUILDING MATERIALS	10,800	11,000	11,000	200	1.8
53	GENERAL MERCHANDISE STORES	26,500	26,000	26,000	-500	-1.9
54	FOOD STORES	33,210	33,310	33,310	100	0.3
55	AUTOMOTIVE DEALERS	27,800	27,500	27,600	-200	-0.7
56	APPAREL STORES	10,490	10,210	10,210	-290	-2.7
57	FURNITURE STORES	6,800	7,800	7,500	700	10.3
58	EATING AND DRINKING PLACES	73,400	72,700	72,800	-600	-0.8
59	MISCELLANEOUS RETAIL	22,500	22,410	22,410	-90	-0.4
	TOTAL FOR TRADE	**284,790**	**283,620**	**282,410**	**-2,380**	**-0.8**
FINANCE, INSURANCE, REAL ESTATE						
60	BANKING	19,400	19,800	19,500	100	0.5
61	CREDIT AGENCIES	8,530	8,900	8,900	370	4.3
62	SECURITY BROKERS	1,600	1,670	1,670	70	4.2
63	INSURANCE	19,430	20,530	20,830	1,400	7.2
64	INSURANCE AGENTS	8,200	8,700	8,800	600	7.4
65	REAL ESTATE	6,800	7,300	7,200	400	5.9
66	MISCELLANEOUS FINANCE	470	490	490	20	4.4
67	HOLDING AND OTHER INVESTMENT OFFICES	990	1,030	1,030	40	3.9
	TOTAL FOR FINANCE, INSURANCE, REAL ESTATE	**65,420**	**68,430**	**68,430**	**3,000**	**4.6**

IOWA INDUSTRY PROJECTIONS
STATE OF IOWA
1987 - 1990

SIC CODE	TITLE	1987	1989	1990	CHANGE 1987 - 1990	PERCENT CHANGE
SERVICES						
70	HOTELS	10,650	10,950	10,950	290	2.8
72	PERSONAL SERVICES	12,200	12,200	12,200	0	0.0
73	BUSINESS SERVICES	27,550	28,540	28,840	1,290	4.7
75	AUTOMOTIVE REPAIR	6,800	6,900	6,800	0	0.0
76	MISCELLANEOUS REPAIR SERVICES	2,800	2,800	2,800	0	0.0
78	MOTION PICTURES	1,610	1,600	1,600	-10	-0.8
79	AMUSEMENT AND RECREATION	8,710	8,630	8,630	-80	-0.9
80	HEALTH SERVICES	83,410	87,920	91,200	7,800	9.3
81	LEGAL SERVICES	6,000	6,300	6,400	400	6.6
82	EDUCATIONAL SERVICES	21,440	21,300	21,210	-230	-1.1
83	SOCIAL SERVICES	14,300	14,900	15,500	1,200	8.4
84	MUSEUMS	170	170	180	10	4.1
86	MEMBERSHIP ORGANIZATIONS	27,400	27,400	27,300	-110	-0.4
89	MISCELLANEOUS SERVICES	5,130	5,230	5,320	190	3.7
	TOTAL FOR SERVICES	**228,190**	**234,830**	**238,930**	**10,750**	**4.7**
GOVERNMENT						
91	FEDERAL GOVERNMENT	20,100	20,200	20,300	200	1.0
92	STATE GOVERNMENT	63,110	63,810	63,810	700	1.1
93	LOCAL GOVERNMENT	127,810	128,210	128,010	210	0.2
	TOTAL FOR GOVERNMENT	**211,020**	**212,220**	**212,120**	**1,100**	**0.5**
	TOTAL	**1,082,670**	**1,085,170**	**1,083,720**	**1,040**	**0.1**

SOURCE: LABOR MARKET INFORMATION UNIT, IOWA DEPARTMENT OF EMPLOYMENT SERVICES

APPENDIX G

JOB OPENINGS AND APPLICANTS BY OCCUPATION
JANUARY 1, 1987 - DECEMBER 31, 1987

STATE OF IOWA

JOB OPENINGS AND APPLICANTS BY OCCUPATION JANUARY 1, 1987 - DECEMBER 31, 1987
STATE OF IOWA

DOT CODE	TITLE	AVAILABLE APPLICANTS 1/	AVAILABLE OPENINGS	APPLICANT/ OPENING RATIO 2/
PROFESSIONAL,TECHNICAL,MANAGERIAL				
001.061-010	ARCHITECT	25	2	12.50
001.261-010	DRAFTER, ARCHITECTURAL	105	16	6.56
003.061-010	ELECTRICAL ENGINEER	50	16	3.13
003.161-010	ELECTRICAL TECHNICIAN	35	4	8.75
003.161-014	ELECTRONICS TECHNICIAN	502	21	23.90
005.061-014	CIVIL ENGINEER	43	16	2.69
007.061-014	MECHANICAL ENGINEER	112	38	2.95
007.161-018	ENGINEERING ASSISTANT, MECHANICAL EQUIPMENT	41	9	4.56
007.161-026	MECHANICAL-ENGINEERING TECHNICIAN	49	9	5.44
007.167-018	TOOL PROGRAMER, NUMERICAL CONTROL	73	6	12.17
007.281-010	DRAFTER, MECHANICAL	278	57	4.88
012.167-030	INDUSTRIAL ENGINEER	82	24	3.42
012.167-042	MANUFACTURING ENGINEER	28	1	28.00
012.167-050	PRODUCTION PLANNER	31	4	7.75
012.167-066	SYSTEMS ANALYST, ELECTRONIC DATA PROCESSING	92	19	4.84
012.261-014	QUALITY-CONTROL TECHNICIAN	34	2	17.00
020.067-010	ENGINEERING ANALYST	25	2	12.50
020.162-014	PROGRAMER, BUSINESS	438	57	7.68
020.167-014	FINANCIAL ANALYST	57	5	11.40
020.187-010	PROGRAMER, INFORMATION SYSTEM	54	5	10.80
022.061-010	CHEMIST	52	13	4.00
029.261-010	LABORATORY TESTER	194	68	2.85
029.261-022	TESTER	43	3	14.33
040.061-010	AGRONOMIST	25	1	25.00
040.061-054	SOIL CONSERVATIONIST	16	31	0.52
041.061-030	BIOLOGIST	36	1	36.00
045.107-010	COUNSELOR	401	55	7.29
045.107-038	RESIDENCE COUNSELOR	43	18	2.39
045.107-042	VOCATIONAL-REHABILITATION COUNSELOR	26	9	2.89
050.067-014	MARKET-RESEARCH ANALYST 1	55	3	18.33
074.387-010	PHARMACY HELPER	56	28	2.00
075.374-010	NURSE, GENERAL DUTY	461	207	2.23
076.124-014	RECREATIONAL THERAPIST	30	3	10.00
078.381-014	MEDICAL-LABORATORY TECHNICIAN	53	22	2.41
079.361-010	RESPIRATORY THERAPIST	34	11	3.09
079.367-010	MEDICAL ASSISTANT	210	41	5.12
079.371-010	DENTAL ASSISTANT	255	100	2.55
079.374-010	EMERGENCY MEDICAL TECHNICIAN	112	26	4.31
079.374-014	NURSE, LICENSED PRACTICAL	525	251	2.09
090.227-010	FACULTY MEMBER, COLLEGE OR UNIVERSITY	88	35	2.51
091.227-010	TEACHER, SECONDARY SCHOOL	395	17	23.24
092.227-010	TEACHER, ELEMENTARY SCHOOL	321	14	22.93
092.227-018	TEACHER, PRESCHOOL	111	44	2.52
096.121-014	HOME ECONOMIST	30	5	6.00

JOB OPENINGS AND APPLICANTS BY OCCUPATION JANUARY 1, 1987 - DECEMBER 31, 1987
STATE OF IOWA

DOT CODE	TITLE	AVAILABLE APPLICANTS 1/	AVAILABLE OPENINGS	APPLICANT/ OPENING RATIO 2/
097.227-014	INSTRUCTOR, VOCATIONAL TRAINING	24	40	0.60
099.224-010	INSTRUCTOR, PHYSICAL EDUCATION	36	3	12.00
099.327-010	TEACHER AIDE 1	160	24	6.67
100.127-014	LIBRARIAN	26	6	4.33
110.107-010	LAWYER	40	12	3.33
119.267-022	LEGAL INVESTIGATOR	41	1	41.00
119.267-026	PARALEGAL ASSISTANT	66	4	16.50
131.067-014	COPY WRITER	40	5	8.00
131.067-046	WRITER, PROSE, FICTION AND NONFICTION	38	0	-
131.267-018	REPORTER	49	8	6.13
131.267-026	WRITER, TECHNICAL PUBLICATIONS	65	14	4.64
132.267-014	EDITORIAL ASSISTANT	41	3	13.67
141.061-018	GRAPHIC DESIGNER	144	10	14.40
141.061-022	ILLUSTRATOR	174	9	19.33
142.051-014	INTERIOR DESIGNER	54	13	4.15
142.081-010	FLORAL DESIGNER	103	37	2.78
143.062-030	PHOTOGRAPHER, STILL	58	37	1.57
149.021-010	TEACHER, ART	26	4	6.50
152.021-010	TEACHER, MUSIC	28	1	28.00
152.041-010	MUSICIAN, INSTRUMENTAL	26	3	8.67
159.117-010	PRODUCER	32	6	5.33
159.147-010	ANNOUNCER	187	15	12.47
159.147-014	DISK JOCKEY	38	10	3.80
160.167-010	ACCOUNTANT	799	96	8.32
160.267-018	ESTIMATOR	38	10	3.80
162.157-018	BUYER	51	7	7.29
162.157-038	PURCHASING AGENT	209	21	9.95
162.167-010	BUYER, GRAIN	38	3	12.67
163.167-018	MANAGER, SALES	486	33	14.73
164.167-010	ACCOUNT EXECUTIVE	28	4	7.00
165.067-010	PUBLIC-RELATIONS REPRESENTATIVE	228	19	12.00
166.117-018	MANAGER, PERSONNEL	160	17	9.41
166.167-018	MANAGER, BENEFITS	44	2	22.00
166.227-010	TRAINING REPRESENTATIVE	35	14	2.50
166.267-010	EMPLOYMENT INTERVIEWER	102	19	5.37
168.167-054	MANAGER, CREDIT AND COLLECTION	28	3	9.33
169.167-010	ADMINISTRATIVE ASSISTANT	766	45	17.02
169.167-014	ADMINISTRATIVE SECRETARY	47	16	2.94
169.167-034	MANAGER, OFFICE	750	49	15.31
169.167-058	UNDERWRITER	69	10	6.90
182.167-010	CONTRACTOR	26	0	-
182.167-026	SUPERINTENDENT, CONSTRUCTION	103	6	17.17
183.117-010	MANAGER, BRANCH	187	10	18.70
183.117-014	PRODUCTION SUPERINTENDENT	284	20	14.20
183.167-018	GENERAL SUPERVISOR	126	18	7.00
184.117-034	MANAGER, AUTOMOTIVE SERVICES	31	5	6.20

JOB OPENINGS AND APPLICANTS BY OCCUPATION JANUARY 1, 1987 - DECEMBER 31, 1987
STATE OF IOWA

DOT CODE	TITLE	AVAILABLE APPLICANTS 1/	AVAILABLE OPENINGS	APPLICANT/ OPENING RATIO 2/
184.167-114	MANAGER, WAREHOUSE	44	3	14.67
185.137-010	MANAGER, FAST FOOD SERVICES	280	42	6.67
185.167-010	COMMISSARY MANAGER	34	1	34.00
185.167-014	MANAGER, AUTOMOBILE SERVICE STATION	138	7	19.71
185.167-034	MANAGER, MERCHANDISE	31	5	6.20
185.167-038	MANAGER, PARTS	103	5	20.60
185.167-046	MANAGER, RETAIL STORE	1,628	137	11.88
185.167-058	SERVICE MANAGER	101	5	20.20
186.117-014	CONTROLLER	36	7	5.14
186.117-038	MANAGER, FINANCIAL INSTITUTION	69	5	13.80
186.167-018	MANAGER, APARTMENT HOUSE	90	17	5.29
186.267-018	LOAN OFFICER	161	14	11.50
187.117-038	MANAGER, HOTEL OR MOTEL	49	4	12.25
187.117-046	PROGRAM DIRECTOR, GROUP WORK	29	11	2.64
187.137-010	RECREATION SUPERVISOR	117	14	8.36
187.167-046	EXECUTIVE HOUSEKEEPER	32	4	8.00
187.167-106	MANAGER, FOOD SERVICE	736	69	10.67
187.167-126	MANAGER, LIQUOR ESTABLISHMENT	115	3	38.33
187.167-186	RESIDENCE SUPERVISOR	35	36	0.97
189.117-022	MANAGER, INDUSTRIAL ORGANIZATION	59	7	8.43
189.167-010	CONSULTANT	210	20	10.50
189.167-014	DIRECTOR, SERVICE	40	4	10.00
189.167-018	MANAGEMENT TRAINEE	2,046	215	9.52
189.167-022	MANAGER, DEPARTMENT	249	10	24.90
189.167-034	SECURITY OFFICER	48	16	3.00
195.107-010	CASEWORKER	435	57	7.63
195.107-022	SOCIAL GROUP WORKER	101	30	3.37
195.107-026	SOCIAL WORKER, DELINQUENCY PREVENTION	26	0	. -
195.107-030	SOCIAL WORKER, MEDICAL	54	5	10.80
195.107-034	SOCIAL WORKER, PSYCHIATRIC	101	15	6.73
195.164-010	GROUP WORKER	55	12	4.58
195.167-010	COMMUNITY ORGANIZATION WORKER	27	6	4.50
195.167-034	PROBATION OFFICER	48	7	6.86
195.227-010	PROGRAM AIDE, GROUP WORK	128	42	3.05
195.227-014	RECREATION LEADER	62	20	3.10
195.267-014	HUMAN RELATIONS OR DRUG AND ALCOHOL COUNSELOR	33	10	3.30
195.367-010	CASE AIDE	65	22	2.95
	TOTAL FOR PROFESSIONAL,TECHNICAL,MANAGERIAL	**23,325**	**3,951**	**5.90**

JOB OPENINGS AND APPLICANTS BY OCCUPATION JANUARY 1, 1987 - DECEMBER 31, 1987
STATE OF IOWA

DOT CODE	TITLE	AVAILABLE APPLICANTS 1/	AVAILABLE OPENINGS	APPLICANT/ OPENING RATIO 2/
CLERICAL				
201.362-010	LEGAL SECRETARY	494	159	3.11
201.362-014	MEDICAL SECRETARY	210	47	4.47
201.362-030	SECRETARY	4,047	795	5.09
203.362-010	CLERK-TYPIST	1,324	351	3.77
203.362-014	IN-FILE OPERATOR	126	35	3.60
203.362-018	TERMINAL-SYSTEM OPERATOR	42	16	2.63
203.362-022	WORD-PROCESSING-MACHINE OPERATOR	130	59	2.20
203.582-010	BRAILLE OPERATOR	36	15	2.40
203.582-022	DATA TYPIST	135	31	4.35
203.582-026	DATA-CODER OPERATOR	110	9	12.22
203.582-030	KEYPUNCH OPERATOR	559	300	1.86
203.582-054	TERMINAL OPERATOR	457	251	1.82
203.582-058	TRANSCRIBING-MACHINE OPERATOR	27	36	0.75
203.582-066	TYPIST	87	126	0.69
205.362-014	EMPLOYMENT CLERK	26	18	1.44
205.362-018	HOSPITAL-ADMITTING CLERK	28	10	2.80
205.367-022	CREDIT CLERK	44	19	2.32
205.367-054	SURVEY WORKER	32	36	0.89
206.362-010	FILE CLERK 1	320	53	6.04
206.367-014	FILE CLERK 2	28	23	1.22
208.685-018	INSERTING-MACHINE OPERATOR	72	52	1.38
209.362-010	CIRCULATION CLERK	60	7	8.57
209.362-026	PERSONNEL CLERK	39	7	5.57
209.562-010	CLERK, GENERAL	8,227	1,219	6.75
209.562-014	TRUST-MAIL CLERK	63	3	21.00
209.567-010	METER READER	35	21	1.67
209.567-022	OFFICE CLERK	87	20	4.35
209.587-026	MAIL CLERK	311	206	1.51
209.587-034	MARKER	34	26	1.31
209.687-010	CHECKER 2	41	14	2.93
210.382-010	AUDIT CLERK	133	30	4.43
210.382-014	BOOKKEEPER	2,901	492	5.90
211.362-010	CASHIER 1	1,638	294	5.57
211.362-018	TELLER	576	300	1.92
211.462-010	CASHIER 2	1,635	519	3.15
211.462-014	CASHIER-CHECKER	4,340	1,302	3.33
211.462-018	CASHIER-WRAPPER	33	1	33.00
213.132-010	SUPERVISOR, COMPUTER OPERATIONS	30	3	10.00
213.362-010	COMPUTER OPERATOR	743	110	6.75
214.362-022	INSURANCE CLERK	30	24	1.25
215.482-010	PAYROLL CLERK	67	32	2.09
216.382-010	ACCOUNTING CLERK, DATA PROCESSING	26	9	2.89
216.482-010	ACCOUNTING CLERK	1,557	341	4.57
216.482-014	ADDING-MACHINE OPERATOR	33	12	2.75

JOB OPENINGS AND APPLICANTS BY OCCUPATION JANUARY 1, 1987 - DECEMBER 31, 1987
STATE OF IOWA

DOT CODE	TITLE	AVAILABLE APPLICANTS 1/	AVAILABLE OPENINGS	APPLICANT/ OPENING RATIO 2/
217.382-010	PROOF-MACHINE OPERATOR	38	44	0.86
219.362-010	ADMINISTRATIVE CLERK	4,157	1,286	3.23
219.362-030	EXTENSION CLERK	62	0	-
219.367-034	STOCK-CONTROL CLERK	50	7	7.14
219.387-014	INSURANCE CLERK 1	37	14	2.64
219.462-010	COUPON CLERK	77	22	3.50
221.167-014	MATERIAL COORDINATOR	35	4	8.75
221.167-018	PRODUCTION COORDINATOR	32	3	10.67
222.137-030	SHIPPING-AND-RECEIVING SUPERVISOR	135	8	16.88
222.137-034	STOCK SUPERVISOR	25	4	6.25
222.367-042	PARTS CLERK	336	70	4.80
222.367-062	TOOL-CRIB ATTENDANT	26	2	13.00
222.387-026	INVENTORY CLERK	175	39	4.49
222.387-050	SHIPPING AND RECEIVING CLERK	861	211	4.08
222.387-058	STOCK CLERK	1,032	282	3.66
230.667-010	DELIVERER, OUTSIDE	50	80	0.63
230.667-014	TELEPHONE-DIRECTORY DELIVERER	32	0	-
235.462-010	CENTRAL-OFFICE OPERATOR	27	10	2.70
235.662-022	TELEPHONE OPERATOR	145	85	1.71
237.367-010	APPOINTMENT CLERK	27	13	2.08
237.367-038	RECEPTIONIST	2,515	666	3.78
238.362-010	HOTEL CLERK	215	191	1.13
238.362-014	RESERVATION CLERK	28	6	4.67
238.367-030	TRAVEL CLERK	692	4	173.00
239.367-010	CUSTOMER-SERVICE REPRESENTATIVE	38	11	3.45
239.567-010	OFFICE HELPER	221	18	12.28
241.217-010	CLAIM ADJUSTER	71	5	14.20
241.267-018	CLAIM EXAMINER	30	8	3.75
241.357-010	COLLECTION CLERK	40	38	1.05
241.362-010	CLAIMS CLERK 1	24	47	0.51
241.367-014	CUSTOMER-COMPLAINT CLERK	58	31	1.87
241.367-018	LOAN INTERVIEWER	25	6	4.17
245.362-010	MEDICAL-RECORD CLERK	40	14	2.86
245.362-014	WARD CLERK	47	15	3.13
249.167-014	DISPATCHER, MOTOR VEHICLE	85	10	8.50
249.367-046	LIBRARY ASSISTANT	89	29	3.07
249.367-054	ORDER CLERK	96	103	0.93
249.367-066	PROCUREMENT CLERK	34	22	1.55
249.367-074	TEACHER AIDE 2	210	26	8.08
	TOTAL FOR CLERICAL	**44,554**	**11,664**	**3.82**

JOB OPENINGS AND APPLICANTS BY OCCUPATION JANUARY 1, 1987 - DECEMBER 31, 1987
STATE OF IOWA

DOT CODE	TITLE	AVAILABLE APPLICANTS 1/	AVAILABLE OPENINGS	APPLICANT/ OPENING RATIO 2/
SALES				
250.257-010	SALES AGENT, INSURANCE	204	136	1.50
250.357-018	SALES AGENT, REAL ESTATE	49	8	6.13
251.157-010	SALES AGENT, SECURITIES	25	7	3.57
252.157-010	TRAVEL AGENT	91	6	15.17
254.357-014	SALES REPRESENTATIVE, ADVERTISING	179	83	2.16
259.357-018	SALES REPRESENTATIVE, RADIO AND TELEVISION	13	27	0.48
260.357-014	SALES REPRESENTATIVE, FOOD PRODUCTS	141	39	3.62
261.357-062	SALESPERSON, SHOES	42	101	0.42
261.357-066	SALESPERSON, WOMEN'S APPAREL AND ACCESSORIES	163	73	2.23
262.357-010	SALES REPRESENTATIVE, CHEMICALS AND DRUG	27	20	1.35
269.357-018	SALES-PROMOTION REPRESENTATIVE	40	0	-
270.357-030	SALESPERSON, FURNITURE	54	36	1.50
272.357-010	SALES REPRESENTATIVE, ANIMAL-FEED PRODUCTS	132	18	7.33
272.357-014	SALES REPRESENTATIVE, FARM AND GARDEN EQUIPMENT	144	22	6.55
273.353-010	SALESPERSON, AUTOMOBILES	174	20	8.70
273.357-022	SALES REPRESENTATIVE, MOTOR VEHICLES AND SUPPLIES	60	14	4.29
273.357-030	SALESPERSON, AUTOMOBILE ACCESSORIES	33	12	2.75
274.357-018	SALES REPRESENTATIVE, BUILDING EQUIPMENT	89	16	5.56
274.357-038	SALES REPRESENTATIVE, INDUSTRIAL MACHINE	27	11	2.45
275.257-010	SALES REPRESENTATIVE, COMPUTERS AND EDP	30	33	0.91
277.357-046	SALESPERSON, PHONOGRAPH RECORDS AND TAPE	29	9	3.22
279.157-010	MANUFACTURERS' REPRESENTATIVE	40	4	10.00
279.357-010	SALES EXHIBITOR	205	25	8.20
279.357-014	SALES REPRESENTATIVE, GENERAL MERCHANDISE	1,966	247	7.96
279.357-050	SALESPERSON, GENERAL HARDWARE	128	67	1.91
279.357-058	SALESPERSON, JEWELRY	43	26	1.65
279.357-062	SALESPERSON, PARTS	183	76	2.41
290.477-010	COUPON-REDEMPTION CLERK	333	226	1.47
290.477-014	SALES CLERK	7,896	2,086	3.79
290.477-018	SALES CLERK, FOOD	249	133	1.87
291.357-010	SALES REPRESENTATIVE, DOOR-TO-DOOR	16	38	0.42
292.353-010	DRIVER, SALES ROUTE	998	286	3.49
297.354-010	DEMONSTRATOR	57	97	0.59
299.137-010	MANAGER, DEPARTMENT	152	36	4.22
299.357-014	TELEPHONE SOLICITOR	1,461	2,015	0.73
299.367-010	CUSTOMER-SERVICE CLERK	143	49	2.92
299.367-014	STOCK CLERK, SELF-SERVICE STORE	925	333	2.78
299.474-010	OPTICIAN, DISPENSING 2	15	27	0.56
299.477-010	DELIVERER, MERCHANDISE	531	401	1.32
299.677-010	SALES ATTENDANT	33	22	1.50
	TOTAL FOR SALES	**17,903**	**7,489**	**2.39**

JOB OPENINGS AND APPLICANTS BY OCCUPATION JANUARY 1, 1987 - DECEMBER 31, 1987
STATE OF IOWA

DOT CODE	TITLE	AVAILABLE APPLICANTS 1/	AVAILABLE OPENINGS	APPLICANT/ OPENING RATIO 2/
SERVICES				
301.137-010	HOUSEKEEPER, HOME	298	28	10.64
301.474-010	HOUSE WORKER, GENERAL	438	109	4.02
301.677-010	CHILD MONITOR	1,801	580	3.11
301.687-010	CARETAKER	193	46	4.20
301.687-014	DAY WORKER	635	94	6.76
301.687-018	YARD WORKER	881	142	6.20
309.677-010	COMPANION	622	308	2.02
310.137-010	HOST/HOSTESS, RESTAURANT	143	120	1.19
310.137-014	KITCHEN SUPERVISOR	26	13	2.00
311.472-010	FAST-FOODS WORKER	598	639	0.94
311.477-010	CAR HOP	252	131	1.92
311.477-014	COUNTER ATTENDANT, LUNCHROOM OR COFFEE SHOP	557	439	1.27
311.477-018	WAITER/WAITRESS, BAR	171	189	0.90
311.477-030	WAITER/WAITRESS	4,841	2,789	1.74
311.677-010	CAFETERIA ATTENDANT	87	42	2.07
311.677-014	COUNTER ATTENDANT, CAFETERIA	163	247	0.66
311.677-018	DINING ROOM ATTENDANT	136	189	0.72
312.474-010	BARTENDER	1,191	506	2.35
312.477-010	BAR ATTENDANT	28	13	2.15
313.131-014	CHEF	68	10	6.80
313.361-010	BAKER, SECOND	253	95	2.66
313.361-014	COOK	2,320	1,327	1.75
313.361-022	COOK, SHORT ORDER 1	668	204	3.27
313.381-010	BAKER	71	38	1.87
313.381-014	BAKER, PIZZA	84	133	0.63
313.671-010	COOK, SHORT ORDER 2	184	38	4.84
315.361-010	COOK	438	192	2.28
315.381-010	COOK	218	34	6.41
316.684-014	DELI CUTTER-SLICER	25	42	0.60
316.684-018	MEAT CUTTER	431	58	7.43
317.684-014	PANTRY GOODS MAKER	52	39	1.33
317.684-018	SANDWICH MAKER	8	30	0.27
317.687-010	COOK HELPER	176	91	1.93
318.687-010	KITCHEN HELPER	2,922	1,148	2.55
318.687-014	SCULLION	51	17	3.00
318.687-018	SILVER WRAPPER	37	6	6.17
319.137-010	FOOD-SERVICE SUPERVISOR	54	16	3.38
319.467-010	FOOD ORDER EXPEDITER	45	106	0.42
320.137-014	MANAGER, LODGING FACILITIES	68	14	4.86
321.137-010	HOUSEKEEPER	790	258	3.06
323.687-010	CLEANER, HOSPITAL	442	110	4.02
323.687-014	CLEANER, HOUSEKEEPING	1,342	490	2.74
323.687-018	HOUSECLEANER	335	156	2.15
324.677-010	BELLHOP	11	30	0.37
330.371-010	BARBER	27	1	27.00

JOB OPENINGS AND APPLICANTS BY OCCUPATION JANUARY 1, 1987 - DECEMBER 31, 1987
STATE OF IOWA

DOT CODE	TITLE	AVAILABLE APPLICANTS 1/	AVAILABLE OPENINGS	APPLICANT/ OPENING RATIO 2/
332.271-010	COSMETOLOGIST	445	97	4.59
332.271-018	HAIR STYLIST	27	11	2.45
354.377-014	HOME ATTENDANT	189	79	2.39
355.374-014	MEDICATION AIDE	41	24	1.71
355.377-014	PSYCHIATRIC AIDE	716	191	3.75
355.377-018	MENTAL-RETARDATION AIDE	30	11	2.73
355.674-010	CHILD-CARE ATTENDANT, SCHOOL	322	98	3.29
355.674-014	NURSE AIDE	3,241	977	3.32
355.674-018	ORDERLY	107	45	2.38
355.677-010	FOOD-SERVICE WORKER, HOSPITAL	514	222	2.32
359.673-010	CHAUFFEUR	111	30	3.70
359.677-010	ATTENDANT, CHILDREN'S INSTITUTION	227	63	3.60
359.677-018	NURSERY SCHOOL ATTENDANT	366	133	2.75
361.684-014	LAUNDRY WORKER 1	197	82	2.40
361.685-018	LAUNDRY WORKER 2	94	72	1.31
361.687-018	LAUNDRY LABORER	78	41	1.90
369.384-014	RUG CLEANER, HAND	20	26	0.77
369.477-014	SERVICE-ESTABLISHMENT ATTENDANT	7	27	0.26
372.667-010	AIRLINE SECURITY REPRESENTATIVE	42	4	10.50
372.667-018	CORRECTION OFFICER	237	103	2.30
372.667-022	FLAGGER	64	14	4.57
372.667-034	GUARD, SECURITY	1,290	359	3.59
372.667-038	MERCHANT PATROLLER	198	72	2.75
375.263-014	POLICE OFFICER 1	175	8	21.88
375.367-010	POLICE OFFICER 2	37	0	-
376.667-010	BOUNCER	2	116	0.02
379.167-010	FISH AND GAME WARDEN	56	3	18.67
379.362-010	DISPATCHER, RADIO	43	22	1.95
381.137-010	SUPERVISOR, JANITORIAL SERVICES	69	31	2.23
381.687-010	CENTRAL-SUPPLY WORKER	120	32	3.75
381.687-014	CLEANER, COMMERCIAL OR INSTITUTIONAL	2,038	761	2.68
381.687-018	CLEANER, INDUSTRIAL	341	173	1.97
382.664-010	JANITOR	3,352	1,232	2.72
	TOTAL FOR SERVICES	**40,059**	**17,108**	**2.34**
AGRICULTURAL				
401.161-010	FARMER, CASH GRAIN	27	2	13.50
401.687-010	FARMWORKER, GRAIN	4,201	240	17.50
405.684-014	HORTICULTURAL WORKER 1	61	8	7.63
405.687-014	HORTICULTURAL WORKER 2	119	52	2.29
406.684-014	GROUNDSKEEPER, INDUSTRIAL-COMMERCIAL	158	28	5.64
406.687-010	GROUNDSKEEPER, PARKS AND GROUNDS	834	89	9.37
407.663-010	FARMWORKER, DIVERSIFIED CROPS 1	31	5	6.20
408.161-010	LANDSCAPE GARDENER	111	14	7.93

JOB OPENINGS AND APPLICANTS BY OCCUPATION JANUARY 1, 1987 - DECEMBER 31, 1987
STATE OF IOWA

DOT CODE	TITLE	AVAILABLE APPLICANTS 1/	AVAILABLE OPENINGS	APPLICANT/ OPENING RATIO 2/
408.664-010	TREE TRIMMER	37	7	5.29
408.684-010	LAWN-SERVICE WORKER	33	31	1.06
408.687-014	LABORER, LANDSCAPE	162	59	2.75
409.131-010	SUPERVISOR, PICKING CREW	323	0	-
409.683-010	FARM-MACHINE OPERATOR	37	12	3.08
409.687-010	INSPECTOR-GRADER, AGRICULTURAL ESTABLISHMENTS	23	141	0.16
409.687-018	WEEDER-THINNER	168	9	18.67
410.664-010	FARMWORKER, LIVESTOCK	102	70	1.46
410.674-010	ANIMAL CARETAKER	179	55	3.25
421.161-010	FARMER, GENERAL	351	12	29.25
421.683-010	FARMWORKER, GENERAL 1	1,018	231	4.41
421.687-010	FARMWORKER, GENERAL 2	361	63	5.73
	TOTAL FOR AGRICULTURAL	**8,792**	**1,307**	**6.73**
PROCESSING				
503.687-010	SANDBLASTER	37	34	1.09
509.686-010	LABORER, GENERAL	1,128	120	9.40
511.664-010	BOTTOM-PRECIPITATOR OPERATOR	26	0	-
518.361-010	MOLDER	27	2	13.50
518.381-014	COREMAKER	25	2	12.50
519.687-022	FOUNDRY WORKER, GENERAL	328	216	1.52
520.685-018	BLENDER-MACHINE OPERATOR	29	6	4.83
525.381-010	BUTCHER APPRENTICE	36	44	0.82
525.381-014	BUTCHER, ALL-ROUND	105	43	2.44
525.684-010	BONER, MEAT	1,003	417	2.41
525.684-054	TRIMMER, MEAT	71	8	8.88
525.687-010	ANIMAL EVISCERATOR	192	3	64.00
525.687-038	HIDE HANDLER	11	30	0.37
525.687-066	POULTRY BONER	33	77	0.43
525.687-070	POULTRY DRESSER	21	139	0.15
525.687-074	POULTRY EVISCERATOR	50	264	0.19
525.687-114	STUNNER, ANIMAL	28	0	-
526.381-010	BAKER	128	39	3.28
526.684-010	DOUGHNUT MAKER	27	40	0.68
526.686-010	BAKER HELPER	74	148	0.50
529.382-018	DAIRY-PROCESSING-EQUIPMENT OPERATOR	32	1	32.00
529.387-030	QUALITY-CONTROL TECHNICIAN	33	11	3.00
529.686-010	BUNDLES HANGER	44	1	44.00
529.686-014	CANNERY WORKER	372	275	1.35
529.686-030	EGG WASHER, MACHINE	15	145	0.10
529.686-034	FACTORY HELPER	33	1	33.00
529.686-070	PRODUCTION HELPER	461	162	2.85
529.687-010	BASKET FILLER	65	16	4.06
529.687-030	CASING SEWER	88	2	44.00

JOB OPENINGS AND APPLICANTS BY OCCUPATION JANUARY 1, 1987 - DECEMBER 31, 1987
STATE OF IOWA

DOT CODE	TITLE	AVAILABLE APPLICANTS 1/	AVAILABLE OPENINGS	APPLICANT/ OPENING RATIO 2/
529.687-130	LABORER, SLAUGHTERING & MEAT PACKING	4,147	2,741	1.51
529.687-186	SORTER, AGRICULTURAL PRODUCE	214	29	7.38
556.382-014	INJECTION-MOLDING-MACHINE OPERATOR	108	47	2.30
556.685-038	INJECTION-MOLDING-MACHINE TENDER	46	21	2.19
557.382-010	EXTRUDER OPERATOR	31	30	1.03
558.585-014	CHEMICAL OPERATOR 2	35	7	5.00
559.382-018	CHEMICAL OPERATOR 3	78	18	4.33
559.567-010	LABORER, GENERAL	66	8	8.25
559.686-026	LABORER, GENERAL	78	313	0.25
559.687-050	LABORER, CHEMICAL PROCESSING	5	27	0.19
575.687-018	LABORER, PRESTRESSED CONCRETE	2	42	0.05
579.380-010	BOARD-MACHINE SET-UP OPERATOR	440	40	11.00
579.667-010	LABORER, GENERAL	26	26	1.00
	TOTAL FOR PROCESSING	**11,073**	**6,148**	**1.80**
MACHINE TRADES				
600.280-022	MACHINIST	1,106	239	4.63
600.280-034	MACHINIST, AUTOMOTIVE	25	5	5.00
600.280-042	MAINTENANCE MACHINIST	103	12	8.58
600.281-022	MACHINE BUILDER	26	33	0.79
600.380-018	MACHINE SET-UP OPERATOR	293	121	2.42
601.280-046	TOOL-AND-DIE MAKER	123	57	2.16
601.280-054	TOOL-MACHINE SET-UP OPERATOR	25	12	2.08
603.685-062	GRINDER OPERATOR, PRODUCTION	52	9	5.78
604.362-010	LATHE OPERATOR, NUMERICAL CONTROL	25	14	1.79
604.685-026	LATHE OPERATOR, PRODUCTION	70	23	3.04
606.380-014	DRILL-PRESS SET-UP OPERATOR, RADIAL	26	5	5.20
606.682-014	DRILL-PRESS OPERATOR	86	3	28.67
606.685-026	DRILL-PRESS OPERATOR, PRODUCTION	30	7	4.29
609.662-010	NUMERICAL-CONTROL-MACHINE OPERATOR	85	36	2.36
609.684-010	INSPECTOR, GENERAL	103	6	17.17
609.684-014	LABORER, GENERAL	1,481	567	2.61
609.685-010	BALL SORTER	65	63	1.03
609.685-018	PRODUCTION-MACHINE TENDER	2,833	557	5.09
615.482-022	PUNCH-PRESS OPERATOR 1	115	43	2.67
615.482-026	PUNCH-PRESS OPERATOR, AUTOMATIC	32	0	-
615.482-034	SHEAR OPERATOR 1	46	6	7.67
615.685-030	PUNCH-PRESS OPERATOR 2	90	6	15.00
616.360-018	MACHINE OPERATOR 1	1,347	359	3.75
616.360-026	MULTI-OPERATION-FORMING-MACHINE OPERATOR	7	49	0.14
617.260-010	PRESS OPERATOR, HEAVY DUTY	92	22	4.18
617.360-010	BRAKE OPERATOR 1	45	28	1.61
619.261-010	INSPECTOR, METAL FABRICATING	38	4	9.50

JOB OPENINGS AND APPLICANTS BY OCCUPATION JANUARY 1, 1987 - DECEMBER 31, 1987
STATE OF IOWA

DOT CODE	TITLE	AVAILABLE APPLICANTS 1/	AVAILABLE OPENINGS	APPLICANT/ OPENING RATIO 2/
619.360-014	METAL FABRICATOR	28	47	0.60
619.685-062	MACHINE OPERATOR 2	409	118	3.47
619.686-010	AUTOMATIC STACKER	22	75	0.29
619.686-022	METAL-FABRICATING-SHOP HELPER	126	11	11.45
620.131-014	SUPERVISOR, GARAGE	46	3	15.33
620.261-010	AUTOMOBILE MECHANIC	2,495	426	5.86
620.261-018	AUTOMOBILE-REPAIR-SERVICE ESTIMATOR	62	21	2.95
620.261-022	CONSTRUCTION-EQUIPMENT MECHANIC	107	28	3.82
620.261-030	AUTOMOBILE-SERVICE-STATION MECHANIC	26	7	3.71
620.281-010	AIR-CONDITIONING MECHANIC	34	9	3.78
620.281-050	MECHANIC, INDUSTRIAL TRUCK	120	25	4.80
620.281-054	MOTORCYCLE REPAIRER	56	13	4.31
620.281-058	TRACTOR MECHANIC	49	16	3.06
620.684-010	AUTOMOBILE WRECKER	28	6	4.67
620.684-014	AUTOMOBILE-MECHANIC HELPER	320	49	6.53
621.281-014	AIRFRAME-AND-POWER-PLANT MECHANIC	75	1	75.00
624.281-010	FARM-EQUIPMENT MECHANIC 1	148	28	5.29
625.281-010	DIESEL MECHANIC	501	99	5.06
625.281-034	SMALL-ENGINE MECHANIC	130	50	2.60
626.281-010	MACHINE REPAIRER, MAINTENANCE	108	18	6.00
633.281-018	OFFICE-MACHINE SERVICER	37	16	2.31
637.261-014	ENVIRONMENTAL-CONTROL-SYSTEM INSTALLER-SERVICER	211	43	4.91
637.261-018	GAS-APPLIANCE SERVICER	58	3	19.33
637.261-026	REFRIGERATION MECHANIC	44	13	3.38
638.131-022	MAINTENANCE-MECHANIC SUPERVISOR	32	8	4.00
638.261-022	PINSETTER MECHANIC, AUTOMATIC	25	4	6.25
638.281-010	FIRE-FIGHTING-EQUIPMENT SPECIALIST	30	2	15.00
638.281-014	MAINTENANCE MECHANIC	824	143	5.76
638.281-018	MILLWRIGHT	110	43	2.56
649.685-070	MACHINE OPERATOR, GENERAL	168	51	3.29
651.362-010	CYLINDER-PRESS OPERATOR	44	25	1.76
651.380-010	PRINTER 2	94	32	2.94
651.482-010	OFFSET-PRESS OPERATOR 1	169	58	2.91
653.685-010	BINDERY WORKER	102	24	4.25
660.280-010	CABINETMAKER	65	24	2.71
669.380-014	MACHINIST, WOOD	33	14	2.36
690.662-014	TUBER-MACHINE OPERATOR	4	32	0.13
699.130-010	PRODUCTION SUPERVISOR	53	4	13.25
	TOTAL FOR MACHINE TRADES	**17,334**	**4,533**	**3.82**

JOB OPENINGS AND APPLICANTS BY OCCUPATION JANUARY 1, 1987 - DECEMBER 31, 1987
STATE OF IOWA

DOT CODE	TITLE	AVAILABLE APPLICANTS 1/	AVAILABLE OPENINGS	APPLICANT/ OPENING RATIO 2/
BENCH WORK				
700.687-010	BENCH WORKER, HOLLOW HANDLE	33	0	-
705.684-030	GRINDER-CHIPPER 1	50	24	2.08
705.687-010	JIGGER	469	143	3.28
705.687-014	LABORER, GRINDING AND POLISHING	2,122	104	20.40
706.361-010	ASSEMBLER	376	15	25.07
706.684-010	AIR-CONDITIONING-COIL ASSEMBLER	34	0	-
706.684-018	ASSEMBLER, PRODUCT	196	137	1.43
706.684-022	ASSEMBLER, SMALL PARTS	268	30	8.93
706.684-102	VENDING-MACHINE ASSEMBLER	17	37	0.46
706.687-010	ASSEMBLER, PRODUCTION	10,308	1,294	7.97
706.687-014	CLUTCH INSPECTOR	64	0	-
706.687-018	FAN-BLADE ALINER	29	3	9.67
706.687-030	PUSH-CONNECTOR ASSEMBLER	98	12	8.17
709.684-014	ASSEMBLER, METAL FURNITURE	2	52	0.04
712.381-018	DENTAL-LABORATORY TECHNICIAN	41	10	4.10
720.281-018	TELEVISION-AND-RADIO REPAIRER	52	15	3.47
723.584-010	APPLIANCE REPAIRER	43	5	8.60
724.684-026	COIL WINDER	13	27	0.48
726.281-014	ELECTRONICS TESTER 1	46	6	7.67
726.384-010	ELECTRONICS ASSEMBLER	31	1	31.00
726.684-014	ELECTRONIC-SCALE SUBASSEMBLER	48	7	6.86
726.684-018	ELECTRONICS ASSEMBLER	416	269	1.55
727.687-038	BATTERY-PARTS ASSEMBLER	0	53	0.00
728.384-010	ASSEMBLER, ELECTRICAL WIRE GROUP	45	84	0.54
728.684-010	CABLE MAKER	50	19	2.63
729.687-010	ASSEMBLER, ELECTRICAL ACCESSORIES 1	206	36	5.72
733.685-010	ASSEMBLER	140	20	7.00
737.687-046	EXPLOSIVE OPERATOR 2	0	56	0.00
739.381-030	FABRICATOR, SHOWER DOORS AND PANELS	15	69	0.22
739.687-030	ASSEMBLER, SMALL PRODUCTS	940	93	10.11
740.684-022	PAINTER, BRUSH	126	9	14.00
741.684-026	PAINTER, SPRAY 1	249	43	5.79
741.687-018	PAINTER, SPRAY 2	79	11	7.18
754.684-030	FINISHER, HAND	1	100	0.01
761.682-014	SANDER, MACHINE	11	28	0.39
762.684-034	DOOR ASSEMBLER	5	52	0.10
763.684-078	WICKER WORKER	53	441	0.12
769.687-054	WOODWORKING-SHOP HAND	140	80	1.75
780.684-062	FABRICATOR, FOAM RUBBER	56	1	56.00
782.687-046	SACK REPAIRER	0	25	0.00
785.261-010	ALTERATION TAILOR	50	42	1.19
786.682-210	POCKET SETTER, LOCKSTITCH	1	30	0.03
786.685-030	SEWING-MACHINE OPERATOR, SEMI-AUTOMATIC	23	25	0.92
787.682-042	SEWING-MACHINE OPERATOR	11	29	0.38
787.682-046	SEWING-MACHINE OPERATOR	486	357	1.36

JOB OPENINGS AND APPLICANTS BY OCCUPATION JANUARY 1, 1987 - DECEMBER 31, 1987
STATE OF IOWA

DOT CODE	TITLE	AVAILABLE APPLICANTS 1/	AVAILABLE OPENINGS	APPLICANT/ OPENING RATIO 2/
794.687-050	SCRAPPER	4	35	0.11
	TOTAL FOR BENCH WORK	**18,859**	**4,508**	**4.18**

STRUCTURAL WORK

DOT CODE	TITLE	AVAILABLE APPLICANTS 1/	AVAILABLE OPENINGS	APPLICANT/ OPENING RATIO 2/
801.361-014	STRUCTURAL-STEEL WORKER	66	63	1.05
801.684-022	PROGRESSIVE ASSEMBLER AND FITTER	149	3	49.67
804.281-010	SHEET-METAL WORKER	178	42	4.24
804.281-014	SHEET-METAL-WORKER APPRENTICE	28	5	5.60
806.381-058	TRAILER ASSEMBLER	21	78	0.27
806.684-010	ASSEMBLER, AUTOMOBILE	73	57	1.28
806.684-018	ASSEMBLER, CAMPER	101	267	0.38
807.381-010	AUTOMOBILE-BODY REPAIRER	767	141	5.44
807.687-010	AUTOMOBILE-BODY-REPAIRER HELPER	97	10	9.70
809.130-014	SUPERVISOR, METAL FABRICATING	26	11	2.36
809.381-010	FABRICATOR-ASSEMBLER, METAL PRODUCTS	31	45	0.69
809.684-026	GRINDER-CHIPPER 2	33	8	4.13
810.384-010	WELDER APPRENTICE, ARC	124	13	9.54
810.384-014	WELDER, ARC	1,087	125	8.70
810.684-010	WELDER, TACK	38	8	4.75
819.361-010	WELDER-FITTER	41	9	4.56
819.384-010	WELDER, COMBINATION	983	149	6.60
819.684-010	WELDER, PRODUCTION LINE	704	262	2.69
821.281-010	TELEVISION-CABLE INSTALLER	44	28	1.57
822.281-022	PRIVATE-BRANCH-EXCHANGE REPAIRER	30	0	-
822.381-014	LINE INSTALLER-REPAIRER	36	0	-
823.281-010	AVIONICS TECHNICIAN	31	1	31.00
823.281-018	METEOROLOGICAL-EQUIPMENT REPAIRER	62	3	20.67
824.261-010	ELECTRICIAN	598	158	3.78
824.261-014	ELECTRICIAN APPRENTICE	141	19	7.42
824.281-014	ELECTRIC-DISTRIBUTION CHECKER	41	6	6.83
828.281-010	ELECTRONICS MECHANIC	658	78	8.44
829.281-014	ELECTRICAL REPAIRER	142	53	2.68
829.684-022	ELECTRICIAN HELPER	93	13	7.15
840.381-010	PAINTER	632	83	7.61
842.381-010	DRY-WALL APPLICATOR	85	6	14.17
844.364-010	CEMENT MASON	267	63	4.24
845.381-014	PAINTER, TRANSPORTATION EQUIPMENT	34	7	4.86
850.683-010	BULLDOZER OPERATOR 1	92	16	5.75
850.683-030	POWER-SHOVEL OPERATOR	77	13	5.92
859.683-010	OPERATING ENGINEER	1,048	71	14.76
859.683-014	OPERATING-ENGINEER APPRENTICE	33	4	8.25
860.131-018	SUPERVISOR, CARPENTERS	29	9	3.22
860.281-010	CARPENTER, MAINTENANCE	47	1	47.00

JOB OPENINGS AND APPLICANTS BY OCCUPATION JANUARY 1, 1987 - DECEMBER 31, 1987
STATE OF IOWA

DOT CODE	TITLE	AVAILABLE APPLICANTS 1/	AVAILABLE OPENINGS	APPLICANT/ OPENING RATIO 2/
860.381-010	ACOUSTICAL CARPENTER	55	14	3.93
860.381-022	CARPENTER	1,843	330	5.58
860.381-026	CARPENTER APPRENTICE	110	10	11.00
860.381-042	CARPENTER, ROUGH	406	36	11.28
860.664-010	CARPENTER 1	33	4	8.25
861.381-018	BRICKLAYER	91	14	6.50
862.381-018	PIPE FITTER	148	45	3.29
862.381-030	PLUMBER	253	58	4.36
862.381-034	PLUMBER APPRENTICE	39	3	13.00
863.684-014	SIDER	55	23	2.39
864.381-010	CARPET LAYER	53	9	5.89
865.381-010	GLAZIER	32	8	4.00
865.684-014	GLASS INSTALLER	20	32	0.63
866.381-010	ROOFER	536	103	5.20
869.567-010	SURVEYOR HELPER	89	30	2.97
869.664-010	CONCRETE-BUILDING ASSEMBLER	219	22	9.95
869.664-014	CONSTRUCTION WORKER	7,573	975	7.77
869.687-010	AWNING-HANGER HELPER	108	8	13.50
869.687-014	CAMOUFLAGE ASSEMBLER	150	4	37.50
869.687-030	FURNACE-INSTALLER-AND-REPAIRER HELPER, HOT AIR	44	5	8.80
891.137-010	MAINTENANCE SUPERVISOR	70	10	7.00
899.281-010	CANAL-EQUIPMENT MECHANIC	34	12	2.83
899.281-014	MAINTENANCE REPAIRER, FACTORY OR MILL	440	40	11.00
899.381-010	MAINTENANCE REPAIRER, BUILDING	1,728	262	6.60
899.684-010	BONDACTOR-MACHINE OPERATOR	26	1	26.00
899.684-014	HIGHWAY-MAINTENANCE WORKER	366	49	7.47
899.684-022	MAINTENANCE-REPAIRER HELPER, FACTORY OR MILL	46	11	4.18
	TOTAL FOR STRUCTURAL WORK	**25,095**	**4,585**	**5.47**
MISCELLANEOUS				
900.683-010	CONCRETE-MIXING-TRUCK DRIVER	41	23	1.78
902.683-010	DUMP-TRUCK DRIVER	122	58	2.10
904.383-010	TRACTOR-TRAILER-TRUCK DRIVER	3,285	949	3.46
905.663-010	GARBAGE COLLECTOR DRIVER	155	30	5.17
905.663-014	TRUCK DRIVER, HEAVY	3,046	445	6.84
905.663-018	VAN DRIVER	37	29	1.28
905.687-010	TRUCK-DRIVER HELPER	58	32	1.81
905.687-014	VAN-DRIVER HELPER	32	15	2.13
906.683-010	FOOD-SERVICE DRIVER	43	7	6.14
906.683-022	TRUCK DRIVER, LIGHT	1,125	279	4.03
909.687-010	GARBAGE COLLECTOR	37	15	2.47
910.682-010	TRACK REPAIRER	60	0	-
913.367-010	TAXICAB STARTER	29	6	4.83

JOB OPENINGS AND APPLICANTS BY OCCUPATION JANUARY 1, 1987 - DECEMBER 31, 1987
STATE OF IOWA

DOT CODE	TITLE	AVAILABLE APPLICANTS 1/	AVAILABLE OPENINGS	APPLICANT/ OPENING RATIO 2/
913.463-010	BUS DRIVER	231	101	2.29
913.463-018	TAXI DRIVER	37	43	0.86
914.667-010	LOADER 1	65	0	-
915.467-010	AUTOMOBILE-SERVICE-STATION ATTENDANT	474	193	2.46
915.477-010	AUTOMOBILE-SELF-SERVE-SERVICE-STATION ATTENDANT	133	83	1.60
915.667-010	CAR-WASH ATTENDANT, AUTOMATIC	11	37	0.30
915.684-010	TIRE REPAIRER	117	99	1.18
915.687-022	PORTER, USED-CAR LOT	16	30	0.53
915.687-034	AUTOMOBILE DETAILER	28	6	4.67
919.663-026	TOW-TRUCK OPERATOR	26	22	1.18
919.687-014	CLEANER 2	147	161	0.91
920.587-018	PACKAGER, HAND	717	259	2.77
920.685-078	PACKAGER, MACHINE	157	76	2.07
920.687-014	BAGGER	101	47	2.15
921.133-018	MATERIAL-HANDLING SUPERVISOR	33	2	16.50
921.663-010	BRIDGE-OR-GANTRY-CRANE OPERATOR	42	2	21.00
921.683-026	CONVEYOR OPERATOR	41	6	6.83
921.683-050	INDUSTRIAL-TRUCK OPERATOR	1,507	70	21.53
921.685-050	PRODUCTION-SUPPLY-EQUIPMENT TENDER	63	8	7.88
922.137-018	SUPERVISOR, LOADING AND UNLOADING	27	3	9.00
922.687-010	BIN FILLER	71	9	7.89
922.687-058	LABORER, STORES	4,120	806	5.11
929.137-022	WAREHOUSE SUPERVISOR	181	12	15.08
929.686-010	BAKERY WORKER	44	76	0.58
929.686-014	BAND SALVAGER	30	0	-
929.687-014	KILN DRAWER	54	2	27.00
929.687-018	LABORER, HIGH-DENSITY PRESS	14	41	0.34
929.687-022	LABORER, SALVAGE	71	16	4.44
929.687-030	MATERIAL HANDLER	10,169	1,703	5.97
950.382-010	BOILER OPERATOR	54	2	27.00
950.382-026	STATIONARY ENGINEER	73	9	8.11
954.382-014	WATER-TREATMENT-PLANT OPERATOR	25	2	12.50
973.381-010	COMPOSITOR	28	14	2.00
973.381-018	JOB PRINTER	28	0	-
979.382-018	GRAPHIC ARTS TECHNICIAN	37	3	12.33
	TOTAL FOR MISCELLANEOUS	**28,500**	**6,294**	**4.53**
	GRAND TOTAL	**235,494**	**67,587**	**3.48**

1/ INCLUDES APPLICANTS WHO WERE REGISTERED WITH JOB SERVICE OF IOWA DURING THE YEAR ENDING DECEMBER 31, 1987. ONLY OCCUPATIONS WITH A MINIMUM OF TWENTY-FIVE APPLICANTS OR TWENTY-FIVE OPENINGS ARE INCLUDED IN THE DETAIL LISTING, ALTHOUGH ALL OCCUPATIONS HAVE BEEN ADDED INTO THE TOTALS.

2/ THE NUMBER OF APPLICANTS AVAILABLE FOR EACH OPENING DURING THE YEAR.

SOURCE: LABOR MARKET INFORMATION UNIT, IOWA DEPARTMENT OF EMPLOYMENT SERVICES

APPENDIX H

JOB OPENINGS BY INDUSTRY YEARS ENDING DECEMBER 1986 AND 1987

STATE OF IOWA

JOB OPENINGS BY INDUSTRY
YEARS ENDING DECEMBER 1986 AND 1987
STATE OF IOWA

SIC CODE	INDUSTRY TITLE	YEAR ENDING DECEMBER 1987	YEAR ENDING DECEMBER 1986	CHANGE	PERCENT CHANGE
	TOTAL	**67,968**	**55,719**	**12,249**	**21.98**
01	AGRICULTURAL PRODUCTION-CROPS	292	228	64	28.07
02	AGRICULTURAL PRODUCTION-LIVESTOCK	252	185	67	36.22
07	AGRICULTURAL SERVICES	350	286	64	22.38
08	FORESTRY	19	21	-2	-9.52
09	FISHING,HUNTING,TRAPPING	2	2	0	0.00
10	METAL MINING	14	3	11	366.67
11	ANTHRACITE MINING	0	1	-	-
12	BITUMINOUS COAL MINING	7	11	-4	-36.36
13	OIL AND GAS EXTRACTION	3	2	1	50.00
14	NONMETALIC MINING AND QUARRYING	36	30	6	20.00
15	BUILDING CONSTRUCTION	787	594	193	32.49
16	CONSTRUCTION OTHER	743	399	344	86.22
17	CONSTRUCTION-SPECIAL TRADE CONTRACTORS	1,285	1,084	201	18.54
20	FOOD AND KINDRED PRODUCTS	5,805	4,582	1,223	26.69
21	TOBACCO MANUFACTURES	14	1	13	1300.00
22	TEXTILE MILL PRODUCTS	54	8	46	575.00
23	APPAREL	605	346	259	74.86
24	LUMBER AND WOOD PRODUCTS	686	350	336	96.00
25	FURNITURE AND FIXTURES	432	475	-43	-9.05
26	PAPER AND ALLIED PRODUCTS	285	206	79	38.35
27	PRINTING AND PUBLISHING	801	665	136	20.45
28	CHEMICALS AND ALLIED PRODUCTS	350	213	137	64.32
29	PETROLEUM REFINING	10	5	5	100.00
30	RUBBER AND PLASTICS	1,139	630	509	80.79
31	LEATHER PRODUCTS	167	149	18	12.08
32	STONE CLAY AND GLASS	413	272	141	51.84
33	PRIMARY METALS	606	296	310	104.73
34	FABRICATED METALS	1,700	1,410	290	20.57
35	MACHINERY,EXCEPT ELECTRICAL	1,949	1,486	463	31.16
36	ELECTRICAL MACHINERY	1,205	1,201	4	0.33
37	TRANSPORTATION EQUIPMENT	1,460	577	883	153.03
38	MEASURING,ANALYZING,CONTROLLING	184	99	85	85.86
39	MISCELLANEOUS MANUFACTURING	376	199	177	88.94
40	RAILROAD TRANSPORTATION	18	11	7	63.64
41	LOCAL AND SUBURBAN TRANSIT	108	108	0	0.00
42	MOTOR FREIGHT TRANSPORTATION	1,893	1,716	177	10.31
43	US POSTAL SERVICE	11	23	-12	-52.17
44	WATER TRANSPORTATION	34	16	18	112.50
45	TRANSPORTATION BY AIR	32	49	-17	-34.69
46	PIPE LINES	7	2	5	250.00
47	TRANSPORTATION SERVICES	91	95	-4	-4.21
48	COMMUNICATION	465	262	203	77.48
49	ELECTRIC,GAS,SANITARY SERVICES	220	212	8	3.77
50	WHOLESALE TRADE-DURABLE GOODS	1,622	1,640	-18	-1.10

JOB OPENINGS BY INDUSTRY
YEARS ENDING DECEMBER 1986 AND 1987
STATE OF IOWA

SIC CODE	INDUSTRY TITLE	YEAR ENDING DECEMBER 1987	YEAR ENDING DECEMBER 1986	CHANGE	PERCENT CHANGE
51	WHOLESALE TRADE-NONDURABLE GOODS	1,724	1,204	520	43.19
52	BUILDING MATERIALS	593	427	166	38.88
53	GENERAL MERCHANDISE STORES	2,506	2,666	-160	-6.00
54	FOOD STORES	1,942	2,252	-310	-13.77
55	AUTOMOTIVE DEALERS	1,588	1,197	391	32.66
56	APPAREL STORES	633	546	87	15.93
57	FURNITURE STORES	519	411	108	26.28
58	EATING AND DRINKING PLACES	8,213	6,657	1,556	23.37
59	MISCELLANEOUS RETAIL	1,556	1,538	18	1.17
60	BANKING	533	512	21	4.10
61	CREDIT AGENCIES	490	410	80	19.51
62	SECURITY BROKERS	48	65	-17	-26.15
63	INSURANCE	271	255	16	6.27
64	INSURANCE AGENTS	475	448	27	6.03
65	REAL ESTATE	416	374	42	11.23
66	MISCELLANEOUS FINANCE	10	9	1	11.11
67	HOLDING AND OTHER INVESTMENT OFFICES	32	68	-36	-52.94
70	HOTELS	1,713	1,493	220	14.74
72	PERSONAL SERVICES	729	509	220	43.22
73	BUSINESS SERVICES	5,274	3,530	1,744	49.41
75	AUTOMOTIVE REPAIR	712	636	76	11.95
76	MISCELLANEOUS REPAIR SERVICES	305	237	68	28.69
78	MOTION PICTURES	111	117	-6	-5.13
79	AMUSEMENT AND RECREATION	484	771	-287	-37.22
80	HEALTH SERVICES	3,597	3,261	336	10.30
81	LEGAL SERVICES	237	259	-22	-8.49
82	EDUCATIONAL SERVICES	705	837	-132	-15.77
83	SOCIAL SERVICES	1,336	1,053	283	26.88
84	MUSEUMS	5	7	-2	-28.57
86	MEMBERSHIP ORGANIZATIONS	547	515	32	6.21
88	PRIVATE HOUSEHOLDS	1,832	1,536	296	19.27
89	MISCELLANEOUS SERVICES	430	283	147	51.94
90	GOVERNMENT	1,870	1,486	384	25.84

SOURCE: LABOR MARKET INFORMATION UNIT, DEPARTMENT OF EMPLOYMENT SERVICES

APPENDIX I

LABOR SUPPLY AND DEMAND FOR SERVICE DELIVERY AREAS

YEAR ENDING DECEMBER 31, 1987

LABOR SUPPLY AND DEMAND FOR SERVICE DELIVERY AREAS
YEAR ENDING DECEMBER 31, 1987

OCCUPATIONAL GROUP	APPLICANTS	OPENINGS	APPLICANT/ OPENING RATIO
SERVICE DELIVERY AREA 1			
TOTAL	**3,646**	**306**	**11.92**
PROFESSIONAL,TECHNICAL,MANAGERIAL	246	2	123.00
CLERICAL	546	16	34.13
SALES	301	59	5.10
SERVICES	650	105	6.19
AGRICULTURAL	204	1	204.00
PROCESSING	111	8	13.88
MACHINE TRADES	290	27	10.74
BENCH WORK	328	25	13.12
STRUCTURAL WORK	445	9	49.44
MISCELLANEOUS	525	54	9.72
SERVICE DELIVERY AREA 2			
TOTAL	**9,709**	**3,175**	**3.06**
PROFESSIONAL,TECHNICAL,MANAGERIAL	901	169	5.33
CLERICAL	1,821	387	4.71
SALES	866	300	2.89
SERVICES	1,272	554	2.30
AGRICULTURAL	491	184	2.67
PROCESSING	363	201	1.81
MACHINE TRADES	397	70	5.67
BENCH WORK	1,392	573	2.43
STRUCTURAL WORK	949	527	1.80
MISCELLANEOUS	1,257	210	5.99
SERVICE DELIVERY AREA 3			
TOTAL	**6,789**	**1,947**	**3.49**
PROFESSIONAL,TECHNICAL,MANAGERIAL	717	112	6.40
CLERICAL	1,303	247	5.28
SALES	547	177	3.09
SERVICES	1,222	563	2.17
AGRICULTURAL	618	79	7.82
PROCESSING	416	225	1.85
MACHINE TRADES	312	103	3.03
BENCH WORK	267	130	2.05
STRUCTURAL WORK	741	116	6.39
MISCELLANEOUS	646	195	3.31

LABOR SUPPLY AND DEMAND FOR SERVICE DELIVERY AREAS
YEAR ENDING DECEMBER 31, 1987

OCCUPATIONAL GROUP	APPLICANTS	OPENINGS	APPLICANT/ OPENING RATIO
SERVICE DELIVERY AREA 4			
TOTAL	**17,073**	**6,533**	**2.61**
PROFESSIONAL,TECHNICAL,MANAGERIAL	1,400	372	3.76
CLERICAL	2,792	943	2.96
SALES	2,396	1,851	1.29
SERVICES	2,826	1,482	1.91
AGRICULTURAL	915	54	16.94
PROCESSING	1,461	510	2.86
MACHINE TRADES	522	108	4.83
BENCH WORK	1,200	230	5.22
STRUCTURAL WORK	1,650	429	3.85
MISCELLANEOUS	1,911	554	3.45
SERVICE DELIVERY AREA 5			
TOTAL	**14,306**	**3,435**	**4.16**
PROFESSIONAL,TECHNICAL,MANAGERIAL	1,232	235	5.24
CLERICAL	2,589	479	5.41
SALES	1,030	393	2.62
SERVICES	2,628	963	2.73
AGRICULTURAL	441	62	7.11
PROCESSING	1,396	430	3.25
MACHINE TRADES	731	165	4.43
BENCH WORK	1,391	191	7.28
STRUCTURAL WORK	1,386	182	7.62
MISCELLANEOUS	1,482	335	4.42
SERVICE DELIVERY AREA 6			
TOTAL	**6,811**	**1,329**	**5.12**
PROFESSIONAL,TECHNICAL,MANAGERIAL	554	56	9.89
CLERICAL	1,132	112	10.11
SALES	366	41	8.93
SERVICES	1,398	372	3.76
AGRICULTURAL	212	9	23.56
PROCESSING	839	79	10.62
MACHINE TRADES	563	447	1.26
BENCH WORK	737	140	5.26
STRUCTURAL WORK	569	30	18.97
MISCELLANEOUS	441	43	10.26

LABOR SUPPLY AND DEMAND FOR SERVICE DELIVERY AREAS
YEAR ENDING DECEMBER 31, 1987

OCCUPATIONAL GROUP	APPLICANTS	OPENINGS	APPLICANT/ OPENING RATIO
SERVICE DELIVERY AREA 7			
TOTAL	**20,142**	**2,715**	**7.42**
PROFESSIONAL,TECHNICAL,MANAGERIAL	1,937	254	7.63
CLERICAL	3,827	463	8.27
SALES	1,510	333	4.53
SERVICES	3,693	529	6.98
AGRICULTURAL	1,612	41	39.32
PROCESSING	695	86	8.08
MACHINE TRADES	1,597	185	8.63
BENCH WORK	525	52	10.10
STRUCTURAL WORK	2,008	242	8.30
MISCELLANEOUS	2,738	530	5.17
SERVICE DELIVERY AREA 8			
TOTAL	**10,800**	**3,376**	**3.20**
PROFESSIONAL,TECHNICAL,MANAGERIAL	1,075	185	5.81
CLERICAL	2,044	578	3.54
SALES	802	316	2.54
SERVICES	1,965	826	2.38
AGRICULTURAL	112	58	1.93
PROCESSING	272	57	4.77
MACHINE TRADES	1,171	338	3.46
BENCH WORK	1,009	509	1.98
STRUCTURAL WORK	1,046	200	5.23
MISCELLANEOUS	1,304	309	4.22
SERVICE DELIVERY AREA 9			
TOTAL	**28,157**	**6,933**	**4.06**
PROFESSIONAL,TECHNICAL,MANAGERIAL	2,646	574	4.61
CLERICAL	5,466	1,892	2.89
SALES	1,759	711	2.47
SERVICES	4,644	1,345	3.45
AGRICULTURAL	215	81	2.65
PROCESSING	1,017	233	4.36
MACHINE TRADES	3,402	627	5.43
BENCH WORK	1,836	254	7.23
STRUCTURAL WORK	2,932	483	6.07
MISCELLANEOUS	4,240	733	5.78

LABOR SUPPLY AND DEMAND FOR SERVICE DELIVERY AREAS
YEAR ENDING DECEMBER 31, 1987

OCCUPATIONAL GROUP	APPLICANTS	OPENINGS	APPLICANT/ OPENING RATIO
SERVICE DELIVERY AREA 10			
TOTAL	**25,495**	**7,840**	**3.25**
PROFESSIONAL,TECHNICAL,MANAGERIAL	3,541	541	6.55
CLERICAL	4,732	1,371	3.45
SALES	2,195	1,070	2.05
SERVICES	3,752	2,174	1.73
AGRICULTURAL	372	215	1.73
PROCESSING	640	177	3.62
MACHINE TRADES	1,589	439	3.62
BENCH WORK	2,967	613	4.84
STRUCTURAL WORK	2,915	561	5.20
MISCELLANEOUS	2,792	679	4.11
SERVICE DELIVERY AREA 11			
TOTAL	**38,276**	**14,325**	**2.67**
PROFESSIONAL,TECHNICAL,MANAGERIAL	4,788	602	7.95
CLERICAL	8,266	2,921	2.83
SALES	2,718	1,180	2.30
SERVICES	5,941	3,655	1.63
AGRICULTURAL	922	273	3.38
PROCESSING	1,725	2,291	0.75
MACHINE TRADES	2,158	1,055	2.05
BENCH WORK	2,733	435	6.28
STRUCTURAL WORK	4,376	704	6.22
MISCELLANEOUS	4,649	1,209	3.85
SERVICE DELIVERY AREA 12			
TOTAL	**5,815**	**1,076**	**5.40**
PROFESSIONAL,TECHNICAL,MANAGERIAL	398	81	4.91
CLERICAL	1,271	150	8.47
SALES	439	115	3.82
SERVICES	1,072	375	2.86
AGRICULTURAL	511	45	11.36
PROCESSING	398	69	5.77
MACHINE TRADES	315	20	15.75
BENCH WORK	177	2	88.50
STRUCTURAL WORK	651	89	7.31
MISCELLANEOUS	583	130	4.48

LABOR SUPPLY AND DEMAND FOR SERVICE DELIVERY AREAS
YEAR ENDING DECEMBER 31, 1987

OCCUPATIONAL GROUP	APPLICANTS	OPENINGS	APPLICANT/ OPENING RATIO
SERVICE DELIVERY AREA 13			
TOTAL	**14,608**	**5,500**	**2.66**
PROFESSIONAL,TECHNICAL,MANAGERIAL	1,058	253	4.18
CLERICAL	2,786	837	3.33
SALES	1,040	374	2.78
SERVICES	2,936	1,931	1.52
AGRICULTURAL	683	97	7.04
PROCESSING	499	408	1.22
MACHINE TRADES	1,735	447	3.88
BENCH WORK	331	173	1.91
STRUCTURAL WORK	1,652	491	3.36
MISCELLANEOUS	1,888	489	3.86
SERVICE DELIVERY AREA 14			
TOTAL	**5,843**	**1,321**	**4.42**
PROFESSIONAL,TECHNICAL,MANAGERIAL	450	66	6.82
CLERICAL	1,002	116	8.64
SALES	271	43	6.30
SERVICES	1,145	359	3.19
AGRICULTURAL	350	33	10.61
PROCESSING	221	143	1.55
MACHINE TRADES	392	24	16.33
BENCH WORK	604	328	1.84
STRUCTURAL WORK	863	99	8.72
MISCELLANEOUS	545	110	4.95
SERVICE DELIVERY AREA 15			
TOTAL	**15,520**	**4,064**	**3.82**
PROFESSIONAL,TECHNICAL,MANAGERIAL	1,315	254	5.18
CLERICAL	2,713	567	4.78
SALES	927	257	3.61
SERVICES	2,981	961	3.10
AGRICULTURAL	426	43	9.91
PROCESSING	758	843	0.90
MACHINE TRADES	1,182	275	4.30
BENCH WORK	1,792	161	11.13
STRUCTURAL WORK	1,789	289	6.19
MISCELLANEOUS	1,637	414	3.95

LABOR SUPPLY AND DEMAND FOR SERVICE DELIVERY AREAS
YEAR ENDING DECEMBER 31, 1987

OCCUPATIONAL GROUP	APPLICANTS	OPENINGS	APPLICANT/ OPENING RATIO
SERVICE DELIVERY AREA 16			
TOTAL	**12,708**	**3,902**	**3.26**
PROFESSIONAL,TECHNICAL,MANAGERIAL	1,088	200	5.44
CLERICAL	2,281	586	3.89
SALES	751	269	2.79
SERVICES	1,971	934	2.11
AGRICULTURAL	721	32	22.53
PROCESSING	272	388	0.70
MACHINE TRADES	1,000	209	4.78
BENCH WORK	1,574	692	2.27
STRUCTURAL WORK	1,144	289	3.96
MISCELLANEOUS	1,906	303	6.29

APPENDIX J

JOB INSURANCE RECIPIENTS

Job Insurance Recipients by Industry of Last Employer

Job Insurance Recipients with Experience in Manufacturing Industries

Job Insurance Recipients by Age

Job Insurance Recipients by Duration of Unemployment

JOB INSURANCE RECIPIENTS BY INDUSTRY OF LAST EMPLOYER
JANUARY THROUGH DECEMBER 1987
STATE OF IOWA

INDUSTRY GROUP	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	AVG
TOTAL	**40149**	**35720**	**31812**	**24110**	**18417**	**17717**	**17532**	**15568**	**13560**	**13312**	**15858**	**20211**	**21997**
AG SERVICES	564	517	399	208	137	139	144	122	111	104	151	267	239
MINING	590	598	435	176	70	50	68	70	62	55	82	202	205
CONSTRUCTION	8678	9493	8444	5121	2755	2350	1832	1424	1227	1162	1847	4027	4030
MANUFACTURING	14652	9739	8756	7064	5269	4969	5069	4484	3977	4135	5063	5537	6560
TRANSPORTATION & PUBLIC UTILITIES	1350	1344	1202	876	684	670	665	618	533	560	649	922	839
TRADE	7808	7761	6833	5639	4893	4928	4836	4400	3715	3592	3964	4548	5243
FINANCE, INSURANCE, REAL ESTATE	757	748	682	603	531	549	561	518	509	505	518	603	590
SERVICES	4269	4053	3597	3212	2984	2887	3068	2761	2379	2179	2451	2798	3053
GOVERNMENT	1142	1134	1173	978	879	947	1085	989	905	861	939	1063	1008
INA	341	338	291	228	218	223	208	183	146	163	192	241	231

SOURCE: LABOR MARKET INFORMATION UNIT, IOWA DEPARTMENT OF EMPLOYMENT SERVICES.

JOB INSURANCE RECIPIENTS WITH EXPERIENCE IN MANUFACTURING INDUSTRIES
JANUARY THROUGH DECEMBER 1987
STATE OF IOWA

MANUFACTURING INDUSTRY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	AVG
TOTAL	**14665**	**9737**	**8754**	**7055**	**5262**	**4971**	**5063**	**4471**	**3961**	**4143**	**5063**	**5536**	**6557**
LUMBER AND WOOD	209	175	151	139	99	89	80	75	50	64	68	106	109
FURNITURE & FIXTURES	90	94	86	92	80	68	76	68	58	53	58	73	75
STONE, CLAY, GLASS & CONCRETE	926	1029	863	257	115	105	80	63	55	57	91	308	329
PRIMARY METALS	310	252	304	306	170	162	139	127	92	87	100	111	180
FABRICATED METALS	706	716	502	437	348	371	399	342	276	240	250	283	406
MACHINERY, EXCEPT ELECTRICAL	6933	1909	1730	1214	986	916	829	755	859	925	1086	1116	1605
ELECTRICAL EQUIPMENT	549	437	413	376	310	296	371	273	236	233	575	267	361
TRANSPORTATION EQUIPMENT	293	258	226	268	230	357	217	118	136	173	252	237	230
MISCELLANEOUS (DURABLE GOODS)	589	551	431	488	284	282	412	192	203	212	248	168	338
FOOD AND KINDRED PRODUCTS	2530	2669	2441	2249	1582	1374	1473	1515	1204	1293	1529	1913	1814
APPAREL	261	375	369	272	265	164	144	129	91	90	159	241	213
PAPER AND ALLIED	71	104	104	106	95	74	69	65	53	33	35	47	71
PRINTING & PUBLISHING	396	428	422	285	240	288	287	232	218	178	165	180	277
CHEMICALS & ALLIED PRODUCTS	265	260	279	240	235	240	237	239	193	199	170	181	228
RUBBER & PLASTICS	408	336	311	238	169	129	182	242	215	277	237	262	251
OTHER NONDURABLES	129	144	122	88	54	56	68	36	22	29	40	43	69

SOURCE: LABOR MARKET INFORMATION UNIT, IOWA DEPARTMENT OF EMPLOYMENT SERVICES.

JOB INSURANCE RECIPIENTS BY AGE
JANUARY THROUGH DECEMBER 1987
STATE OF IOWA

AGE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	AVG
TOTAL	**40149**	**35720**	**31812**	**24110**	**18417**	**17717**	**17532**	**15568**	**13560**	**13312**	**15858**	**20211**	**21997**
UNDER 22	1378	1463	1204	934	701	677	733	620	513	567	769	1137	891
22-24	3180	3231	2769	2003	1500	1446	1449	1256	1023	1015	1208	1837	1826
25-34	13638	13274	11667	8710	6443	6108	5983	5244	4467	4379	5284	7117	7693
35-44	9996	8571	7734	5861	4594	4446	4351	3901	3465	3392	4027	4842	5432
45-54	7207	5094	4587	3597	2821	2752	2797	2526	2263	2207	2625	3011	3457
55-59	2649	2119	1999	1489	1147	1119	1118	1064	940	920	1000	1251	1401
60-64	1642	1519	1431	1150	919	895	831	711	645	629	706	786	989
65+	457	433	414	355	290	273	274	246	242	212	229	234	305
INA	6	8	8	6	2	2	0	0	0	0	0	0	3

SOURCE: LABOR MARKET INFORMATION UNIT, IOWA DEPARTMENT OF EMPLOYMENT SERVICES.

JOB INSURANCE RECIPIENTS BY DURATION OF UNEMPLOYMENT
JANUARY THROUGH DECEMBER 1987
STATE OF IOWA

DURATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	AVG
TOTAL	**40149**	**35720**	**31812**	**24110**	**18417**	**17717**	**17532**	**15568**	**13560**	**13312**	**15858**	**20211**	**21997**
UNDER 6 WEEKS	18716	15779	9697	8504	6640	7124	7641	6092	4983	5668	7830	10312	9082
6 TO 10 WEEKS	8482	9875	11190	4850	3893	3899	3784	3717	3398	2642	3148	4504	5282
11 TO 15 WEEKS	3737	5184	5665	5504	2930	2437	2453	2291	1953	2066	1856	2237	3193
16 TO 20 WEEKS	2532	2023	2739	2765	2685	1762	1589	1496	1244	1242	1354	1235	1889
21 TO 25 WEEKS	5441	1449	1258	1419	1245	1575	1027	1055	994	747	808	1016	1503
26 TO 30 WEEKS	741	821	692	480	511	479	650	469	519	476	383	473	558
31 TO 35 WEEKS	266	327	316	318	277	158	186	269	244	254	236	180	253
OVER 36 WEEKS	239	261	254	262	240	282	205	182	226	211	239	250	238

SOURCE: LABOR MARKET INFORMATION UNIT, IOWA DEPARTMENT OF EMPLOYMENT SERVICES.

APPENDIX K

JOB SERVICE LABOR MARKET INFORMATION PRODUCTS

LABOR FORCE, EMPLOYMENT AND UNEMPLOYMENT INFORMATION

Contains	Labor force, unemployment and employment data by labor area; Industry employment by labor area	
Available	Monthly for State, MSA's and counties	
Contact	Ann Wagner Steve Ford	(515) 281-8182 (515) 281-5197

LABOR MARKET INFORMATION FOR SERVICE DELIVERY AREAS

Contains	Characteristics of Job Service applicants; Openings and applicants by occupation' Job openings by industry; Nonagricultural wage and salary employment; Labor force and unemployment; Characteristics of the insured unemployed	
Available	Quarterly for the 16 Service Delivery Areas	
Contact	Mike Blank Jone Culp	(515) 281-8179 (515) 281-8183

WAGE SURVEYS

Contains	Wage information by occupation - averages, ranges and frequency distribution	
Available	Annually for State; As requested by local users for substate areas	
Contact	Jim Gillaspey	(515) 281-8179

LABOR MARKET INFORMATION FOR AFFIRMATIVE ACTION PROGRAMS

Contains	Population by sex and minority (1980); Employment status by sex and minority status for previous calendar year; Occupational attachment of the labor force by race, sex and EEO category (1980); Occupation of Job Service applicants	
Available	Annually for State, MSA's, counties and selected cities	
Contact	Jone Culp	(515) 281-8183

OCCUPATIONAL EMPLOYMENT STATISTICS (OES)

Contains	Detailed data on industry staffing patterns; Data is obtained from a mail survey of a sample of employers that is conducted in a three-year cycle:	

1st year -	Regulated industries, wholesale, and retail trade, state and local government
2nd year -	Manufacturing and hospitals
3rd year -	Mining, construction, finance, banking and insurance, services

Available	Annually for State (Three consecutive annual publications needed for a complete series)	
Contact	Steve Ford	(515) 281-8183

LABOR MARKET INFORMATION FOR IOWA

Contains	Information on the Job Training Partnership Act (JTPA); Labor Force Characteristics and Trends; Employment Developments by Industry; Employment Outlook by Occupation; Labor Supply and Demand; Characteristics of Job Service Applicants; Characteristics of the Insured Unemployed; Civilian Population by Age, Race and Sex;	
Available	Annually for State	
Contact	Mike Blank	(515) 281-8179

INDUSTRY/OCCUPATIONAL PROJECTIONS

Contains	Occupational projections for the nonagricultural wage and salary component of employment	
Available	Annually for State and the 16 Service Delivery Areas	
Contact	Mike Blank Steve Ford	(515) 281-8179 (515) 281-8183

UNEMPLOYMENT BY OCCUPATION

Contains	Estimated labor force, employment, number of employed, and unemployment rates for selected occupations	
Available	Annually for the State and each Service Delivery Area (in one publication)	
Contact	Mike Blank	(515) 281-8179

IOWA OCCUPATIONAL PLANNING GUIDE

Contains	A list of occupations ranked by specific vocational preparation (SVP) time, number of Job Service applicants and openings, projected openings for the state and each Service Delivery Area, and average hourly wages. Also includes classification of Instructional Programs (CIP) codes and titles for these occupations, anticipated program completers and the results of the Department of Education Student Interest Survey for each of these CIP programs.	
Available	Annually for the State and each Service Delivery Area (in one publication)	
Contact	Mike Blank	(515) 281-8179

IOWA LABOR SUPPLY/DEMAND ANALYSIS

Contains	Job openings and applicants by occupation; Job openings by industry; Characteristics of Job Insurance recipients; Appendix contains labor supply and demand for selected local offices	
Available	Quarterly for State	
Contact	Mike Blank	(515) 281-8179

LABOR MARKET INFORMATION DIRECTORY

Contains	General information on LMI products prepared by the Iowa Department of Employment Services. Also includes labor force concepts and economic terms essential to understanding employment and unemployment trends.	
Available	Revised as necessary	
Contact	Ann Wagner	(515) 281-8182

HOURS AND EARNINGS FOR PRODUCTION WORKERS

Contains	Average weekly earnings, average weekly hours and average hourly earnings for production workers in manufacturing	
Available	Monthly for State and MSA's that contain the cities of Cedar Rapids, Davenport, Des Moines, Dubuque, Sioux City and Waterloo	
Contact	Albert Johnson: Dubuque, Cedar Rapids, Des Moines	(515) 281-4264
	Rita Lundy: Iowa City, Council Bluffs, Waterloo/Cedar Falls	(515) 281-5754
	Jerry Shroyer: Davenport, Sioux City	(515) 281-7502
	Bill Voyce: Statewide	(515) 281-3895

202 SUMMARY TABLES

Contains	Employment and wage data by industry (tabulated from Quarterly Employer's Payroll and Contribution Report - IESC-21)	
Available	Quarterly for State and all Iowa counties	
Contact	Bob Schutt	(515) 281-8178

JOB INSURANCE BENEFITS

Contains	Number of weeks compensated and amount of benefits paid under the state and federal unemployment insurance programs	
Available	Monthly for State and all Iowa counties	
Contact	Bob Schutt	(515) 281-8178